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In Memory of
STEPHEN SPAULDING
¹⁹⁰⁷ - ¹⁹²⁵
CLASS of 1927
UNIVERSITY OF MICHIGAN

W.H. Burdett 1927

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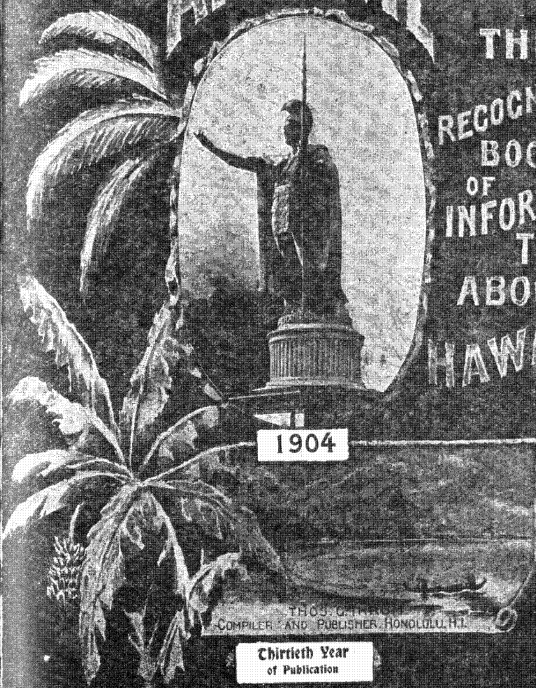
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THE HAWAIIAN ANNUAL

THE
RECOGNIZED
BOOK
OF
INFORMATION
ABOUT
HAWAII

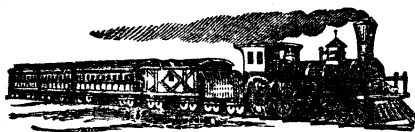


1904

THOS. G. THAYER
COMPILER AND PUBLISHER HONOLULU, H.I.

Thirtieth Year
of Publication

Oahu Railway and Land Co.



THIS COMPANY is now running to KAHUKU, 71 miles from Honolulu. The equipment of the road is first-class in every particular. EXCURSION RATES are maintained from Saturday morning till Monday of each week. A delightful ride through varied and unsurpassed Scenery make excursions on the OAHU RAILWAY one of the most attractive features of the Islands, not only to the Tourists, but residents of Honolulu as well. The opportunity to visit a large Sugar Estate should not be missed by those visiting these Islands, and among others on the line of the Railway is the Ewa Plantation, the largest in the Islands, its crop yielding 38,775 tons of sugar in 1902.

PEARL CITY

Located at the famous PEARL HARBOR, the proposed coaling and naval station of the United States, has been laid out in streets and provided with an excellent system of water works. Over \$100,000 in lots have been sold to 140 different purchasers, and a number of residences already erected; a few very desirable lots may yet be had on VERY EASY TERMS.

MALEIWA HOTEL

At WAIALUA is a beautiful new Hotel, of the most modern construction and equipment, in which guests will find all possible comfort and entertainment, combined with elegance of furnishing, tropical surroundings and healthful atmosphere. The view from the Hotel embraces Sea, Mountain and Valley in a combination not to be enjoyed elsewhere.

B. F. DILLINGHAM, General Manager.

G. P. DENISON,

Superintendent.

F. C. SMITH,

Gen'l Passenger and Ticket Agent.

HAWAIIAN ALMANAC AND ANNUAL

FOR

1904



THE REFERENCE BOOK OF INFORMATION AND STATISTICS

RELATING TO THE TERRITORY OF HAWAII, OF VALUE TO
MERCHANTS, TOURISTS AND OTHERS



THOS. G. THRUM,

Compiler and Publisher.

Thirtieth Year of Publication

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HONOLULU:
1903

1904

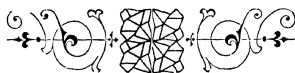
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	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
JAN.	3 10 17 24 31	4 11 18 25	5 12 19 26	6 13 20 27	7 14 21 28	1 8 15 22 29	2 9 16 23 30
FEB.	7 14 21 28	8 15 22 29	2 9 16 23	3 10 17 24	4 11 18 25	5 12 19 26	6 13 20 27
MAR.	6 13 20 27	7 14 21 28	8 15 22 29	9 16 23 30	10 17 24 31	11 18 25	12 19 26
APRIL	3 10 17 24	4 11 18 25	5 12 19 26	6 13 20 27	7 14 21 28	8 15 22 29	9 16 23 30
MAY	1 8 15 22 29	2 9 16 23 30	3 10 17 24 31	4 11 18 25	5 12 19 26	6 13 20 27	7 14 21 28
JUNE	5 12 19 26	6 13 20 27	7 14 21 28	1 8 15 22 29	2 9 16 23 30	3 10 17 24	4 11 18 25

THOS. G. THURM
PUBLISHER
Stationer, Bookseller and News Agent

1063 FORT STREET, HONOLULU, H. T.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
JULY	3 10 17 24 31	4 11 18 25	5 12 19 26	6 13 20 27	7 14 21 28	1 8 15 22 29	2 9 16 23 30
AUG.	7 14 21 28	8 15 22 29	1 9 16 23 30	2 10 17 24 31	3 11 18 25	4 12 19 26	5 13 20 27
SEPT.	4 11 18 25	5 12 19 26	6 13 20 27	7 14 21 28	8 15 22 29	9 16 23 30	10 17 24
OCT.	2 9 16 23 30	3 10 17 24 31	4 11 18 25	5 12 19 26	6 13 20 27	7 14 21 28	8 15 22 29
NOV.	6 13 20 27	7 14 21 28	8 15 22 29	9 16 23 30	10 17 24	11 18 25	12 19 26
DEC.	4 11 18 25	5 12 19 26	6 13 20 27	7 14 21 28	8 15 22 29	1 9 16 23 30	2 10 17 24



Maj Thomas M. Spaulding
9th
9-26-1923

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HAWAIIAN ANNUAL CALENDAR FOR 1904.

Second half of the sixth year and first half of the seventh year since annexation of Hawaii with the United States.

Eleventh year since the downfall of the Monarchy.

The 126th year since the discovery of the Hawaiian Islands by Captain Cook.

HOLIDAYS OBSERVED AT THE HAWAIIAN ISLANDS.

*New Year	Jan. 1	*American Anniversary	July 4
Chinese New Year	Feb. 16	*Labor Day (First Monday).	Sept. 5
*Washington's Birthday....	Feb. 22	*Regatta Day (Third Sat.).	Sept. 17
Good Friday	April 1	Recognition of Hawaiian	
*Decoration Day	May 30	Independence	Nov. 28
*Kamehameha Day	June 11	Thanksgiving Day	Nov. 24
*Birthday Hawaiian Republic.	July 4	*Christmas .	Dec. 25

Those distinguished by an Asterisk have been established as Territorial Holidays by Legislative enactment; see Laws 1903, Act 55.

CHRONOLOGICAL CYCLES.

Dominical Letter	C.B.	Solar Cycle	9
Epact .	13	Roman Indiction	2
Golden Number	5	Julian Period	6617

CHURCH DAYS.

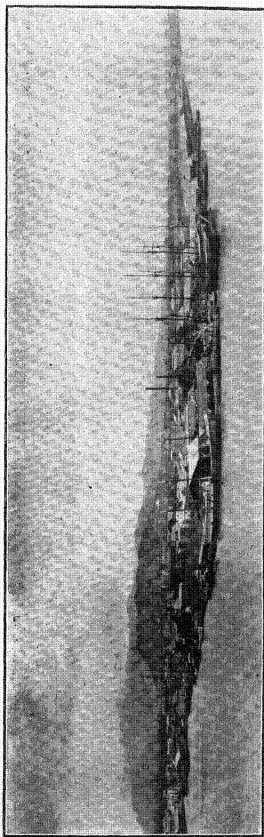
Epiphany .	Jan.	Whit Sunday	May 22
Ash Wednesday	Feb. 17	Trinity Sunday	May 29
First Sunday in Lent.....	Feb. 21	Corpus Christi	June 2
Good Friday	April 1	Advent Sunday	Nov. 27
Easter Sunday	April 3	Christmas .	Dec. 25
Ascension Day	May 12		

ECLIPSES IN 1904.

In the year 1904 there will be two eclipses, both of the Sun, as follows:

I—An annular eclipse of the Sun, March 17th, invisible at these islands.

II—A total eclipse of the Sun, September 9th, visible in the Pacific; observable in Honolulu as partial eclipse, beginning at 8:00 a. m. and ending at 10:08.



VIEW OF HONOLULU FROM THE HARBOR.
FROM PHOTO., COURTESY OF KING BROS.

FIRST QUARTER, 1904.

JANUARY					FEBRUARY					MARCH													
D.		H. M.			D.		H. M.			D.		H. M.											
2	Full Moon...	7	17	4 p.m.	1	Full Moon...	6	03	2 a.m.	1	Full Moon.....	4	18	4 p.m.									
9	Last Quar...	10	40	1 a.m.	7	Last Quar...	11	26	2 p.m.	8	Last Quar.....	2	30	6 p.m.									
17	New Moon...	5	16	6 a.m.	16	New Moon...	0	34	7 a.m.	16	New Moon.....	7	09	2 p.m.									
25	First Quar...	10	11	0 a.m.	24	First Quar...	0	38	7 a.m.	24	First Quar.	11	06	8 a.m.									
										31	Full Moon.....	2	14	4 a.m.									
Day of Mo.	Day of Wk.	Sun Rises..		Sun Sets...		Day of Mo.	Day of Wk.	Sun Rises.		Sun Sets..		Day of Mo.	Day of Wk.	Sun Rises.		Sun Sets..							
		H.	M.	H.	M.			H.	M.	H.	M.			H.	M.	H.	M.						
1	Fri.	6	38	0	5	29	8	1	Mon...	6	37	6	5	50	3	1	Tues....	6	20	0	6	04	8
2	Sat.	6	38	3	5	30	4	2	Tues...	6	37	2	5	50	9	2	Wed....	6	19	1	6	05	2
3	SUN	6	38	6	5	31	1	3	Wed...	6	36	8	5	51	5	3	Thurs...	6	18	3	6	05	6
4	Mon...	6	38	8	5	31	7	4	Thurs...	6	36	5	5	52	2	4	Fri.....	6	17	5	6	06	0
5	Tues...	6	39	0	5	32	4	5	Fri.....	6	36	1	5	52	8	5	Sat.....	6	16	7	6	06	4
6	Wed...	6	39	2	5	33	1	6	Sat....	6	35	6	5	53	4	6	SUN....	6	15	8	6	06	7
7	Thurs...	6	39	4	5	33	7	7	SUN....	6	35	1	5	53	9	7	Mon...	6	15	0	6	07	1
8	Fri....	6	39	6	5	34	4	8	Mon...	6	34	6	5	54	5	8	Tues...	6	14	2	6	07	5
9	Sat....	6	39	8	5	35	1	9	Tues...	6	34	1	5	55	0	9	Wed....	6	13	3	6	07	8
10	SUN..	6	40	0	5	35	8	10	Wed...	6	33	6	5	55	5	10	Thurs...	6	12	4	6	08	2
11	Mon...	6	40	2	5	36	5	11	Thurs...	6	33	1	5	56	0	11	Fri.....	6	11	5	6	08	5
12	Tues...	6	40	3	5	37	1	12	Fri....	6	32	5	5	56	6	12	Sat.....	6	10	7	6	08	8
13	Wed...	6	40	4	5	37	8	13	Sat....	6	31	9	5	57	1	13	SUN....	6	09	8	6	09	2
14	Thurs...	6	40	4	5	38	5	14	SUN...	6	31	3	5	57	6	14	Mon...	6	08	9	6	09	5
15	Fri....	6	40	4	5	39	2	15	Mon...	6	30	7	5	58	1	15	Tues...	6	08	0	6	09	8
16	Sat....	6	40	4	5	39	9	16	Tues...	6	30	1	5	58	6	16	Wed...	6	07	1	6	10	1
17	SUN...	6	40	4	5	40	6	17	Wed...	6	29	5	5	59	1	17	Thurs...	6	06	2	6	10	4
18	Mon...	6	40	4	5	41	2	18	Thurs...	6	28	8	5	59	6	18	Fri.....	6	05	2	6	10	7
19	Tues...	6	40	3	5	41	9	19	Fri....	6	28	2	6	00	1	19	Sat....	6	04	3	6	11	1
20	Wed...	6	40	2	5	42	6	20	Satur...	6	27	5	6	00	6	20	SUN....	6	03	4	6	11	4
21	Thurs...	6	40	1	5	43	2	21	SUN...	6	26	8	6	01	0	21	Mon...	6	02	4	6	11	7
22	Fri....	6	40	0	5	43	9	22	Mon...	6	26	2	6	01	5	22	Tues...	6	01	5	6	12	0
23	Sat....	6	39	8	5	44	6	23	Tues...	6	25	5	6	02	0	23	Wed...	6	00	6	6	12	3
24	SUN...	6	39	6	5	45	2	24	Wed...	6	24	7	6	02	4	24	Thurs...	5	59	7	6	12	7
25	Mon...	6	39	5	5	45	9	25	Thurs...	6	23	9	6	02	8	25	Fri.....	5	58	8	6	13	0
26	Tues...	6	39	3	5	46	5	26	Fri....	6	23	1	6	03	2	26	Sat....	5	57	9	6	13	3
27	Wed...	6	39	1	5	47	2	27	Satur...	6	22	3	6	03	6	27	SUN...	5	56	9	6	13	6
28	Thurs...	6	38	9	5	47	8	28	SUN...	6	21	6	6	04	0	28	Mon...	5	56	0	6	13	9
29	Fri....	6	38	6	5	48	4	29	Mon...	6	20	8	6	04	4	29	Tues...	5	55	1	6	14	2
30	Sat....	6	38	2	5	49	0									30	Wed...	5	54	2	6	14	5
31	SUN..	6	37	9	5	49	7									31	Thurs...	5	53	3	6	14	8

The *S. B. Wheeler*, a side-wheel river boat which arrived at Honolulu November 12th, 1853, from San Francisco, was the first steamer to enter the coasting trade of these islands, taking for that purpose the Hawaiian name of *Akamai*, but she was so worn out that she narrowly escaped foundering more than once, and was finally withdrawn after her memorable trip of September 29th, 1854, condemned and broken up.

SECOND QUARTER, 1904.

APRIL					MAY					JUNE				
D.		H. M.			D.		H. M.			D.		H. M.		
7	Last Quar..	7.23.4	a.m.		7	Last Quar...	1 20.4	a.m.		5	Last Quar ...	7 22.8	p.m.	
15	New Moon...	11.23.2	a.m.		15	New Moon...	0.28.4	a.m.		13	New Moon....	10 40.5	a.m.	
22	First Quar..	6.24.7	p.m.		21	First Quar ..	11 48.7	p.m.		20	First Quar....	4 40.6	a.m.	
29	Full Moon ..	0 06.2	p.m.		28	Full Moon ...	10.24.6	p.m.		27	Full Moon ..	9 53.4	a.m.	

Day of Mo.	Day of Wk.	Sun Rises..		Sun Sets..		Day of Mo.	Day of Wk.	Sun Rises..		Sun Sets..		Day of Mo.	Day of Wk.	Sun Rises..		Sun Sets..							
		H.	M.	H.	M.			H.	M.	H.	M.			H.	M.	H.	M.						
1	Fri ...	5	52	4	6	15	1	SUN	5	28	6	6	25	4	1	Wed....	5	17	2	6	38	4	
2	Sat....	5	51	5	6	15	4	2	Mon...	5	27	9	6	25	8	2	Thur...	5	17	1	6	38	8
3	SUN...	5	50	6	6	15	8	3	Tue...	5	27	3	6	26	2	3	Fri....	5	17	0	6	39	2
4	Mon...	5	49	7	6	16	1	4	Wed...	5	26	7	6	26	6	4	Sat....	5	17	0	6	39	5
5	Tue...	5	48	8	6	16	4	5	Thu...	5	26	1	6	27	0	5	SUN...	5	17	0	6	39	9
6	Wed...	5	47	9	6	16	7	6	Fri...	5	25	6	6	27	4	6	Mon...	5	17	0	6	40	3
7	Thu...	5	47	0	6	17	0	7	Sat...	5	25	0	6	27	8	7	Tue...	5	17	0	6	40	7
8	Fri...	5	46	2	6	17	3	8	SUN...	5	24	5	6	28	2	8	Wed...	5	17	0	6	41	0
9	Sat...	5	45	3	6	17	6	9	Mon...	5	24	0	6	28	6	9	Thur...	5	17	0	6	41	4
10	SUN...	5	44	4	6	17	9	10	Tue...	5	23	6	6	29	1	10	Fri....	5	17	0	6	41	7
11	Mon...	5	43	6	6	18	3	11	Wed...	5	23	1	6	29	5	11	Sat....	5	17	1	6	42	0
12	Tue...	5	42	7	6	18	6	12	Thu...	5	22	7	6	29	9	12	SUN...	5	17	2	6	42	3
13	Wed...	5	41	9	6	18	9	13	Fri...	5	22	3	6	30	4	13	Mon...	5	17	3	6	42	6
14	Thu...	5	41	1	6	19	2	14	Sat...	5	21	8	6	30	8	14	Tue...	5	17	4	6	42	9
15	Fri...	5	40	3	6	19	5	15	SUN...	5	21	4	6	31	2	15	Wed...	5	17	6	6	43	2
16	Sat...	5	39	5	6	19	9	16	Mon...	5	21	1	6	31	6	16	Thu...	5	17	8	6	43	5
17	SUN...	5	38	7	6	20	2	17	Tue...	5	20	7	6	32	0	17	Fri...	5	18	0	6	43	7
18	Mon...	5	37	9	6	20	6	18	Wed...	5	20	3	6	32	5	18	Sat...	5	18	1	6	44	0
19	Tue...	5	37	1	6	20	9	19	Thu...	5	20	0	6	32	9	19	SUN...	5	18	3	6	44	2
20	Wed...	5	36	3	6	21	3	20	Fri...	5	19	7	6	33	3	20	Mon...	5	18	5	6	44	5
21	Thu...	5	35	5	6	21	7	21	Sat...	5	19	4	6	33	7	21	Tue...	5	18	7	6	44	7
22	Fri...	5	34	7	6	22	0	22	SUN...	5	19	1	6	34	2	22	Wed...	5	18	9	6	44	9
23	Sat...	5	34	0	6	22	4	23	Mon...	5	18	8	6	34	6	23	Thur...	5	19	1	6	45	0
24	SUN...	5	33	2	6	22	8	24	Tue...	5	18	5	6	35	1	24	Fri....	5	19	4	6	45	2
25	Mon...	5	32	5	6	23	1	25	Wed...	5	18	2	6	35	5	25	Sat....	5	19	7	6	45	3
26	Tue...	5	31	9	6	23	5	26	Thur...	5	18	0	6	36	0	26	SUN...	5	20	0	6	45	4
27	Wed...	5	31	2	6	23	9	27	Fri...	5	17	8	6	36	4	27	Mon...	5	20	3	6	45	5
28	Thu...	5	30	5	6	24	2	28	Sat...	5	17	7	6	36	8	28	Tue...	5	20	6	6	45	6
29	Fri...	5	29	8	6	24	6	29	SUN...	5	17	5	6	37	2	29	Wed...	5	20	9	6	45	7
30	Sat...	5	29	2	6	25	0	30	Mon...	5	17	4	6	37	6	30	Thur...	5	21	2	6	45	8
								31	Tue...	5	17	3	6	38	0								

Steam as a motive power in these islands dates from 1853. Following the arrival of the *S. B. Wheeler*, a steam engine for the Lihue plantation was received from Boston, and one also for the steam flouring mill, machine shop foundry and saw mill of D. M. Weston, then in course of construction here. A successful trial of its machinery was had February 11th, 1854, and for some time thereafter attracted much attention.

THIRD QUARTER, 1904

JULY					AUGUST					SEPTEMBER								
D.	H.M.				D.	H.M.				D.	H.M.							
5	Last Quar...	0.24.2	p.m.		4	Last Quar...	3.32.8	a.m.		2	Last Quar....	4.28.5	p.m.					
12	New Moon..	6.57.3	p.m.		11	New Moon..	2.28.1	a.m.		9	New Moon....	10.12.8	a.m.					
19	First Quar..	10.18.6	a.m.		17	First Quar..	5.57.1	p.m.		16	First Quar...	4.42.7	a.m.					
26	Full Moon..	11.11.9	p.m.		25	Full Moon..	2.32.0	p.m.		24	Full Moon....	7.19.7	a.m.					
Day of Mo.	Day of Wk.	Sun Rises..		Sun Sets..	Day of Mo.	Day of Wk.	Sun Rises..		Sun Sets..	Day of Mo.	Day of Wk.	Sun Rises..		Sun Sets..				
		H.	M.	H.	M.		H.	M.	H.	M.		H.	M.	H.	M.			
1	Fri...	5	21	5	6	45	9				1	Thur....	5	43	6	15	3	
2	Sat...	5	21	9	6	45	9				2	Fri.....	5	43	8	6	14	4
3	SUN...	5	22	2	6	45	9				3	Satur...	5	44	1	6	13	5
4	Mon...	5	22	6	6	45	9				4	SUN....	5	44	3	6	12	6
5	Tue...	5	22	9	6	45	8				5	Mon....	5	44	6	6	11	7
6	Wed...	5	23	3	6	45	8				6	Tues....	5	44	8	6	10	8
7	Thur...	5	23	6	6	45	7				7	Wed....	5	45	1	6	09	8
8	Fri...	5	24	0	6	45	7				8	Thur....	5	45	4	6	08	9
9	Sat...	5	24	4	6	45	6				9	Fri.....	5	45	6	6	07	9
10	SUN...	5	24	7	6	45	5				10	Satur...	5	45	9	6	06	9
11	Mon...	5	25	1	6	45	4				11	SUN....	5	46	2	6	05	9
12	Tue...	5	25	5	6	45	3				12	Mon....	5	46	4	6	05	0
13	Wed...	5	25	9	6	45	1				13	Tues....	5	46	7	6	04	0
14	Thur...	5	26	3	6	44	9				14	Wed....	5	46	9	6	03	0
15	Fri...	5	26	7	6	44	7				15	Thur...	5	47	1	6	02	1
16	Sat...	5	27	1	6	44	4				16	Fri.....	5	47	4	6	01	1
17	SUN...	5	27	5	6	44	2				17	Satur...	5	47	6	6	00	2
18	Mon...	5	27	9	6	43	9				18	SUN....	5	47	9	5	59	2
19	Tue...	5	28	3	6	43	7				19	Mon....	5	48	1	5	58	3
20	Wed...	5	28	7	6	43	4				20	Tues....	5	48	4	5	57	4
21	Thur...	5	29	1	6	43	1				21	Wed....	5	48	6	5	56	4
22	Fri...	5	29	5	6	42	7				22	Thur...	5	48	9	5	55	4
23	Sat...	5	29	9	6	42	4				23	Fri.....	5	49	2	5	54	5
24	SUN...	5	30	3	6	42	0				24	Satur...	5	49	4	5	53	5
25	Mon...	5	30	7	6	41	6				25	SUN....	5	49	7	5	52	6
26	Tue...	5	31	1	6	41	2				26	Mon....	5	50	0	5	51	6
27	Wed...	5	31	5	6	40	7				27	Tues....	5	50	2	5	50	7
28	Thur...	5	31	9	6	40	3				28	Wed....	5	50	5	5	49	8
29	Fri...	5	32	3	6	39	8				29	Thur....	5	50	8	5	48	8
30	Sat...	5	32	7	6	39	3				30	Fri.....	5	51	1	5	47	9
31	SUN...	5	33	1	6	38	8				31	Wed...	5	43	3	6	16	2

Persons interested in the study of the usages, customs and beliefs of Hawaiians will find much instructive material thereon from their own writings in the native papers prior to 1870, notably in the scarce volumes of the *Kuokoa*. In 1868 is a paper on ancient land and sea divisions, and two on foolish practices and beliefs of certain Hawaiians.

FOURTH QUARTER, 1904

OCTOBER				NOVEMBER				DECEMBER										
D.	H.M.			D.	H.M.			D.	H.M.									
2	Last Quar...	3.22.1	a.m.	7	New Moon...	5.06.7	a.m.	6	New Moon....	5.16.4	p.m.							
8	New Moon...	6.54.9	p.m.	14	First Quar...	2.05.5	p.m.	14	First Quar....	11.36.9	a.m.							
15	First Quar..	6.24.2	p.m.	22	Full Moon...	4.41.9	p.m.	22	Full Moon....	7.31.0	a.m.							
24	Full Moon...	0.25.8	a.m.	29	Last Quar...	9.08.0	p.m.	29	Last Quar....	5.16.0	p.m.							
31	Last Quar...	0.43.3	p.m.															
Day of Mo.	Day of Wk.	Sun Rises..		Sun Sets...	Day of Mo.	Day of Wk.	Sun Rises..		Sun Sets...	Day of Mo.	Day of Wk.	Sun Rises..		Sun Sets...				
		H.	M.	H.	M.		H.	M.	H.	M.		H.	M.	H.	M.			
1	Sat....	5	51	4	5	47	0				1	Thur...	6	21	8	5	17	3
2	SUN...	5	51	7	5	46	1				2	Fri....	6	22	5	5	17	4
3	Mon...	5	52	0	5	45	2				3	Sat....	6	23	1	5	17	6
4	Tues...	5	52	3	5	44	3				4	SUN...	6	23	8	5	17	8
5	Wed...	5	52	6	5	43	4				5	Mon...	6	24	4	5	18	0
6	Thur...	5	52	9	5	42	5				6	Tues...	6	25	1	5	18	2
7	Fri...	5	53	2	5	41	6				7	Wed...	6	25	7	5	18	4
8	Sat....	5	53	5	5	40	7				8	Thur...	6	26	3	5	18	7
9	SUN...	5	53	9	5	39	9				9	Fri....	6	26	9	5	19	0
10	Mon...	5	54	3	5	39	0				10	Sat....	6	27	6	5	19	4
11	Tues...	5	54	6	5	38	2				11	SUN...	6	28	2	5	19	7
12	Wed...	5	55	0	5	37	3				12	Mon...	6	28	8	5	20	0
13	Thur...	5	55	3	5	36	5				13	Tues...	6	29	4	5	20	4
14	Fri...	5	55	7	5	35	7				14	Wed...	6	30	0	5	20	8
15	Sat....	5	56	0	5	34	9				15	Thur...	6	30	5	5	21	2
16	SUN...	5	56	4	5	34	2				16	Fri....	6	31	1	5	21	6
17	Mon...	5	56	8	5	33	4				17	Sat....	6	31	6	5	22	1
18	Tues...	5	57	1	5	32	6				18	SUN...	6	32	1	5	22	5
19	Wed...	5	57	5	5	31	9				19	Mon...	6	32	7	5	23	0
20	Thur...	5	57	9	5	31	1				20	Tues...	6	33	2	5	23	5
21	Fri...	5	58	3	5	30	3				21	Wed...	6	33	7	5	24	0
22	Sat....	5	58	8	5	29	7				22	Thur...	6	34	2	5	24	5
23	SUN...	5	59	2	5	29	0				23	Fri....	6	34	7	5	25	0
24	Mon...	5	59	7	5	28	3				24	Sat....	6	35	2	5	25	5
25	Tues...	6	00	1	5	27	7				25	SUN...	6	35	7	5	26	1
26	Wed...	6	00	6	5	27	0				26	Mon...	6	36	1	5	26	7
27	Thur...	6	01	1	5	26	4				27	Tues...	6	36	5	5	27	3
28	Fri...	6	01	6	5	25	9				28	Wed...	6	36	9	5	27	9
29	Sat....	6	02	1	5	25	2				29	Thur...	6	37	2	5	28	5
30	SUN...	6	02	6	5	24	6				30	Fri....	6	37	5	5	29	1
31	Mon...	6	03	0	5	24	1				31	Sat....	6	37	8	5	29	7

An outline of the life of Kuakini (Governor Adams, of Hawaii) in an early issue of the *Polynesian*, states, that he was the first man of his nation who ever learned to read. Long before an alphabet of his native language was formed, he had obtained sufficient knowledge of the English language to speak and write it with tolerable facility.

INTER-ISLAND DISTANCES BY SEA IN SEA MILES.

AROUND OAHU FROM HONOLULU—ESPLANADE WHARF TO

	Miles.		Miles.
Bell Buoy	1 $\frac{1}{4}$	Pearl River Bar	6
Diamond Head	5	Barber's Point	15
Koko Head	12	Waianae Anchorage	26
Makapuu Point	16	Kaena Point, N.W. of Oahu.....	36
Mokapu	27	Waialua Anchorage	46
Kahuku North Point	48	Kahuku N. Pt., Oahu, via Kaena 58	

HONOLULU TO

Lae o ka Laau, S.W. Pt. Molokai 35	Kawaihae, Hawaii	144
Kalaupapa, Leper Settlement..... 52	Kealakekua, " (direct)....	157
West Point of Lanai..... 50	" " (via Kawaihae) 186	
Lahaina, Maui, ...	S. W. pt. Hawaii "	233
Kahului, "	Punaluu, "	250
Hana, "	Hilo, " (direct).....	192
Maalaea, "	" " (windward)....	206
Makena, "	" " (via Kawaihae) 230	
Mahukona, Hawaii, ...		134

HONOLULU TO

Nawiliwili, Kauai	98	Hanalei, Kauai	125
Koloa, "	102	Niihau	144
Waimea, "	120		

LAHAINA, MAUI, TO

Kaluaaha, Molokai	17	Maalaea, Maui	12
Lanai	9	Makena, Maui	18

KAWAIIHAE, HAWAII, TO

Mahukona, Hawaii	10	Hilo, Hawaii	85
Waipio, Hawaii	37	Lae o ka Mano, Hawaii.....	20
Honokaa, Hawaii	45	Kailua, Hawaii	34
Laupahoehoe, Hawaii	62	Kealakekua, Hawaii	44

HILO, HAWAII, TO

East point of Hawaii	20	Punaluu, Hawaii	70
Keauhou, Kau. Hawaii	50	Kaalualu, Hawaii	80
North Point of Hawaii	62	South point of Hawaii.....	85

WIDTH OF CHANNELS.

Oahu and Molokai	23	Maui and Lanai	7
Diamond Head to S.W. point of Molokai	30	Maui and Kahoolawe	6
Molokai and Lanai	7	Hawaii and Maui	26
Molokai and Maui	8	Kauai and Oahu	63
		Niihau and Kauai	15

OCEAN DISTANCES.

HONOLULU TO

San Francisco	2100	Auckland	3810
San Diego	2260	Sydney	4410
Portland, Or.	2360	Hongkong	4920
Brito, Nicaragua	4200	Yokohama	3400
Panama	4720	Guam	3300
Tahiti	2440	Manila, via N.E. Cape	4890
Samoa	2290	Victoria, B. C.	2460
Fiji	2700	Midway Islands	1200

OVERLAND DISTANCES.

Revised for the Annual by C. J. Lyons, in accordance with latest Government Survey measurements. The outer column of figures indicates the distance between points.

ISLAND OF OAHU.

HONOLULU POST-OFFICE TO

Miles.		Miles. Inter.	
Bishop's corner (Waikiki)	3.2	Kahana	26.4 4.5
Waikiki Villa	3.6	Punaluu	28.4 2.0
Race Course	4.5	Hauula	31.4 3.0
Diamond Head	5.9	Laie	34.4 3.0
Kaalawai	6.0	Kahuku Mill	37.2 2.8
Miles. Inter.		Miles. Inter.	
Thomas Square	1.0	Kahuku Ranch	40.0 2.8
Pawaa corners	2.0 1.0	Moanalua	3.4
Kamoiliili	3.3 1.3	Kalauao	7.4 4.0
Telegraph Hill	5.0 1.7	Ewa Church	10.2 2.8
Waialae	6.2 1.2	Kipapa	13.6 3.4
Niu	8.8 2.6	Kaukonahua	20.0 6.4
Koko Head	11.8 3.0	Leilehua	20.0
Makapuu	14.8 3.0	Waialua	28.0 8.0
Waimanalo	20.8 6.0	Waimea	32.4 4.4
Waimanalo, via Pali	12.0	Kahuku Ranch	39.4 7.0
Nuuanu Bridge	1.1	Ewa Church	10.2
Mausoleum	1.5 0.4	Waipio (Brown's)	11.2 1.0
Electric Reservoir	2.7 1.2	Hoeae (Robinson's)	13.5 2.3
Luakaha	4.3 1.6	Barber's Point L. H.	21.5 8.0
Pali*	6.2 1.9	Nanakuli	23.5 2.0
Kaneohe (new road)	11.9 5.7	Waianae Plantation	29.9 6.4
Waiahole	18.9 7.0	Kahanahaiki	36.9 7.0
Kualoa	21.9 3.0	Kaena Point	42.0 5.1
		Waialua to Kaena Pt.	12.0

OAHU RAILWAY: DISTANCES FROM HONOLULU DEPOT TO

Miles.		Miles.	
Moanalua	2.76	Waipio	13.58
Puuloa	6.23	Waialeale	14.57
Halawa	8.14	Hoeae	15.23
Aiea	9.37	Ewa Plantation Mill	18.25
Kalauao	10.20	Waianae Station	33.30
Waiau	10.93	Kaena Point	44.50
Pearl City	11.76	Waialua Station	55.80
Waiawa	12.52	Kahuku Plantation	69.50

ISLAND OF KAUAI.

NAWILIWILI TO

Miles. Inter.		Miles. Inter.	
Koloa	11.0	Wailua River	7.7 4.4
Lawai	13.8 2.8	Kealia	11.9 4.2
Hanapepe	20.0 6.2	Anahola	15.7 3.8
Waimea	27.1 7.1	Kilauea	23.6 7.9
Waiawa	31.5 4.4	Kalihiwai	26.6 3.0
Nuololo	44.8 13.3	Hanalei	31.8 5.2
		Wainiha	34.8 3.0
Hanamaulu	3.3	Nuololo (no road)	47.0 12.2

*Pali distance is by the old road, new measurements are not yet available.

ISLAND OF MAUI.

KAHULUI TO

	Miles.	Inter.		Miles.	Inter.
Spreckelsville	3.5		Paia	5.5	
Paia	5.5	2.0	Makawao Court House	10.5	5.0
Hamakuapoko Mill	8.6	3.1	Olinda	16.7	6.2
Haiku	10.2	1.6	Haleakala, edge Crater	22.5	5.8
Halehaku	16.0	5.8	Haleakala Summit	24.7	2.2
Huelo	19.5	3.5			
Keanae	27.2	7.7	Maalaea	9.9	
Nahiku	32.7	5.5	End of Mountain Road	15.4	5.5
Ulaino	36.3	3.6	Olowalu	19.6	4.2
Hana	42.3	6.0	Lahaina Court House	25.5	5.9
Hamoā	45.3	3.0			
Wailua	48.9	3.6	Waiehu	3.3	
Kipahulu Mill	52.2	3.3	Waihee	4.8	1.5
Mokulau	56.6	4.4	Kahakuloa	10.1	5.3
Nuu	62.1	5.5	Honokohau	14.5	4.4
			Honolua	17.4	2.9
Wailuku	3.1		Napili	20.0	2.6
Waikapu	5.5	2.4	Honokawai	23.8	3.8
Maalaea	9.9	4.4	Lahaina Court House	29.3	5.5
Kalepolepo	14.6	4.7			
Mana	22.3	7.7	MAKENA TO		
Ulupalakua	25.6	3.3	Ulupalakua	3.3	
Kanaio	28.9	3.3	Kamaole	7.1	3.8
Pico's	35.5	6.6	Waiakoa	12.1	5.0
Nuu	41.0	5.5	Foot of Puu Pane	15.8	3.7
			Makawao Court House	21.8	6.0

ISLAND OF HAWAII.

WAIMEA COURT HOUSE TO

	Miles.	Inter.		Miles.	Inter.
Hamakua boundary	4.5		Hilo, via Humuula St'n	54.0	25.0
Kukuihaele Mill	11.0	6.5	Keamuku Sheep St'n	14.0	
Mana	7.7		Napuu	22.0	8.0
Hanaipoe	15.0	7.3	Keawewai	8.0	
Keanakolu	24.0	9.0	Waika	11.0	3.0
Puakala	34.0	10.0	Kahuwa	13.0	2.0
Laumaia	36.5	2.5	Puuhue	17.0	4.0
Humuula Sheep Station,			Kohala Court House	22.0	5.0
via Laumaia	47.5	11.0	Mahukona	22.0	
Auwaiakewa	12.5		Puako	12.0	
Humuula Sheep Station	29.0	16.5			

NORTH KOHALA.—FOREIGN CHURCH, KOHALA, TO

	Miles.		Miles.
Edge of Pololu Gulch	4.00	Union Mill	2.25
Niulii Mill	2.80	Union Mill R. R. Station	3.25
Dr. Wight's Store, Halawa	1.15	Honomakau	2.55
Halawa Mill	1.15	Hind's Hawi	3.25
Hapuu Landing	2.56	Hawi R. R. Station	4.25
Kohala Mill	.50	Honoipu	7.20
Kohala Mill Landing	1.50	Mahukona	10.50
Native Church	1.00	Puuhue Ranch	7.25

NORTH KOHALA.—ON MAIN ROAD, MAHUKONA TO

	Miles.	Inter.		Miles.	Inter.
Hind's Mill	7.0		Dr. Wight's Corner	11.5	1.1
Union Mill Corner	8.0	1.0	Niulii Corner	12.8	1.3
Court House	9.2	1.2	Pololu. Edge of Gulch...	14.5	1.7
Bond's Corner	9.7	0.5	Puu Hue	5.0	
Kohala Mill Corner	10.4	0.7			

SOUTH KOHALA.—KAWAIHAE TO

	Miles.	Inter.		Miles.
Puu Ainako	4.4		Mana, Parker's	19.5
Puuiki, Spencer's	7.7	3.3	Keawewai	6.0
Waiaka, Catholic Church...	9.5	1.8	Puuhue Ranch	10.0
Puuopelu, Parker's	10.8	1.3	Kohala Court House	15.0
Waimea Court House...	11.8	1.0	Mahukona	11.0
Waimea Church	12.2	0.4	Napuu	20.0
Kukuihaele Church	22.1	9.9	Puako	5.0

KONA.—KEALAKEKUA TO

Keauhou	6.0		Kawaihae	42.0	4.6
Holualoa	9.6	3.6	Honaunau	4.0	
Kailua	12.0	2.4	Jookena	7.7	3.7
Kaloko	16.0	4.0	Olelomoana	15.2	7.5
Makalawena	19.6	3.6	Hoopulua	21.6	6.4
Kiholo	27.6	8.0	Boundary of Kau	24.8	3.2
Ke Au a Lono bound'y...	31.6	4.0	Flow of '87	32.0	7.2
Puako	37.4	5.8	Kahuku Ranch	36.5	4.5

KAU.—VOLCANO HOUSE TO

Half-way House	13.0		Honuapo	32.6	5.0
Kapapala	18.0	5.0	Naalehu	35.6	3.0
Pahala	23.0	5.0	Waiohinu	37.1	1.5
Punaluu	27.6	4.6	Kahuku Ranch	43.1	6.0

PUNA.—HILO COURT HOUSE TO

(By new road.)

	Miles.		Miles.
Keaau, Forks of Road.....	9.0	Kaimu	32.0
Pahoa	20.0	Kalapana	33.0
Pohoiki (Rycroft's)	28.0	Keauhou	50.0
Kapoho (Lyman's)	32.0	Panau	40.0
Opihikao	31.0	Volcano House via Panau	56.0
Kamaili	26.0	Sand Hills, Naawale, old road ..	18.5
Kamaili Beach	29.0	Kapoho, old road	22.0

TO VOLCANO.—HILO TO

Shipman's	1.7	Mountain View	16.8
Edge of Woods	4.1	Mason's	17.5
Cocoanut Grove	8.0	Hitchcock's	23.5
Branch Road to Puna	9.0	Cattle Pen	24.7
Furieux's	13.2	Volcano House	31.0

THROUGH HILO DISTRICT TO

Honolii Bridge	2.5	Honohina Church	17.8
Papaikou Office	4.7	Waikaumalo Bridge	18.8
Onomea Church	6.9	Pohakupuka Bridge	21.0
Kaupakuea Cross Road	10.7	Maulua Gulch	22.0
Kolekole Bridge	14.3	Kaiwilahilahi Bridge	24.0
Hakalau, east edge gulch.....	15.0	Lydgate's House	26.1
Umauma Bridge	16.0	Laupahoe Church	26.7

THROUGH HAMAKUA.—LAUPAHOEHOE CHURCH TO			
	Miles.		Miles.
Bottom Kawalii Gulch	2.0	Kuaikalua Gulch	22.0
Ookala, Manager's House	4.0	Kapulena Church	23.9
Kealakaha Gulch	6.0	Waipanihua	24.3
Kaala Church	6.8	Stream at Kukuihaele	26.0
Kukaiau Gulch	8.0	Edge Waipio	26.5
Horner's	8.5	Bottom Waipio	27.0
Catholic Church, Kainehe	9.0	Waimanu (approximate)	32.5
Notley's, Paauilo	10.5	Kukuihaele to Waimea (approximate)	10.5
Kaumoalii Bridge	12.5	Gov't Road to Hamakua Mill....	1.5
Bottom Kalopa Gulch	14.0	Gov't Road to Paauhau Mill....	1.0
Wm. Horner's, Paauhau	15.2	Gov't Road to Pacific Sugar Mill,	
Paauhau Church	16.3	Kukuihaele	0.7
Holmes' Store, Honokaa	18.0		
Honokaia Church	20.5		

ISLAND OF MOLOKAI.

KAUNAKAKAI TO

Meyer's, Kalae	5.0	Pukoo	15.0
Kalaupapa	9.0	Halawa	25.0
Kamalo	9.0	Ka Lae o ka Laau.....	19.0
Kaluaaha	13.5		

TABLE OF ELEVATIONS OF PRINCIPAL LOCALITIES THROUGHOUT THE ISLANDS.

(From Government Survey Records; Measurements from mean Sea Level.)

OAHU PEAKS.

	Feet.		Feet.
Kaala, Waianae Range	4030	Telegraph Hill or Kaimuki....	291
Palikea, Waianae Range.....	3111	Koko Head, higher crater.....	1205
Konahuanui Peak, S. of Pali..	3105	Koko Head, lower crater.....	644
Lanihuli Peak, N. of Pali.....	2781	Makapuu, east point of island..	665
Tantalus or Puu Ohia.....	2013	Mokapu, crater off Kaneohe...	681
Awawaloa (Olympus), Hanoa..	2447	Olomana, sharp peak, Kailua..	1645
Round Top or Ualakaa	1049	Maelieli, sharp peak, Heeia....	715
Punchbowl Hill or Puowaina..	498	Ohulehule, sh'p peak, Hakipuu..	2263
Diamond Head or Leahi.....	761	Koolau Range, above Wahiawa	2381

LOCALITIES NEAR HONOLULU.

Nuuanu Road, cor. School St.	40	Nuuanu Road, Queen Emma's	358
" " second bridge..	77	" " cor. above Elec	
" " cor. Judd St..	137	tric Light Works	429
" " Cemetery gate..	162	Nuuanu Road, large bridge...	735
" " Mau's'm gate..	206	" " Luakaha gate..	848
" " Schaefer's gate..	238	" " Pali, old station	1214

MOLOKAI ETC.

Kamakou Peak	4958	Kaolewa Pali, overlooking	
Olokui Peak	4600	Leper Settlement	2100
Kaunuohua	4535	Meyer's, Kalae	1485
Kalapamoa	4004	Mauna Loa, near Kaunakakai	1382
Puu Kolekole	3951	Kualapuu Hill	1018
Kaulahuki	3749	Kahoolawe (Moaula Hill) ...	1472
Kaapahu Station	3563	Molokini	160
		Lanai	3400

HAWAII.

	Feet.		
Mauna Kea	13,825	Hiilawe Falls	1700
Mauna Loa	13,675	Parker's Mana	3505
Hualalai	8275	Honokaa Store	1100
Kohala Mountains	5489	Lower edge forest, Hamakua.	1700
Kilauea Vol. House, by level-		Lower edge forest, Hilo	1200
ling	3971	Laupahoehoe Pali	385
Kulani, near Kilauea	5574	Maulua Pali	406
Kalaiheha	6660	Kauku Hill	1964
Aahuwela, near Laumaia	7747	Puu Alala	762
Hitchcock's, Puakala	6325	Halai Hill	347
Ahumo'a	7034	Puu o Nale, Kohala	1797
Waimea Court House	2669	B. D. Bond's, Kohala	521
Waipio Pali, on N. side.....	1394	Anglican Church, Kainaliu....	1578
Waipio Pali, on S. (Road)...	900	Puu Enuhe, Kau.	2327
Waipio Pali, in Mountain....	3000	Puu Hoomaha, Kau	6636
Waimanu, at sea	1600	Puu ka Pele, Kau.	5768
Waimanu in mountain.....	4000	Kaluamakani, Hamakua	7584
Waiau Lake, Mauna Kea.....	1600	Kapoho Hill, Puna	432
Poliahu, Mauna Kea.....	13,646	Kaliu Hill, Puna	1065
Kalaieha, N. Hilo	6738	Olaa Trig. Station	622

MAUI.

Haleakala (Red Hill).....	10,032	Puu Kapuai, Hamakua.....	1150
Mt. Kukui, West Maui.....	5790	Puu o Umi, Haiku.....	629
Piihola, Makawao	2256	Puu Pane, Kula	2568
Puu Olai, (Miller's Hill)	355	Lahainaluna Seminary	600
Puu Io, near Ulupalakua.....	2841	Kauiki, Hana	392
Ulupalakua, about	1800	"Sunnyside," Makawao	930
Olinda, Makawao	4043	Paia Foreign Church, about..	850
Puu Pane, Kahikinui.....	3988	Eka, crater in Waihee.....	4500
Puu Niania, Makawao.....	6850	Keakaamanu, Hana	1250

KAUAI.

Haupu	2030	Mt. Waialeale, central peak...	5250
Kilohana, about	1100	Namolokama	4200

NOTE.—A large number of approximate elevations of stations where rain records are kept may be found in the Rain Tables in this Annual.

Area, Elevation and Population of the Hawaiian Islands.

(As revised by recent Government Survey Records.)

ISLANDS.	Area in Statute Square Miles.	Acres.	Height in Feet.	Population in 1900
Hawaii.....	4,015	2,570,000	13,825	46,843
Maui.....	728	466,000	10,032	24,797
Oahu.....	598	384,000	4,030	58,504
Kauai.....	547	348,000	5,250	20,562
Molokai.....	261	167,000	4,958	2,504
Lanai.....	139	86,000	3,400	619
Niihau.....	97	62,000	1,300	172
Kahoolawe.....	69	44,000	1,472	.....

Total area of Hawaiian Islands, 6,449 square miles.

The outlying islets to the N.W., may amount to 6 square miles.

DIMENSIONS OF KILAUEA, ISLAND OF HAWAII.

Corrected for Deflection of the Vertical.

Area, 4.14 square miles, or 2,650 acres.
 Circumference, 41,500 feet, or 7.85 miles.
 Extreme Width, 10,300 feet, or 1.95 miles.
 Extreme Length 15,500 feet, or 2.93 miles.
 Elevation, Volcano House, 4,000 feet.

DIMENSIONS OF MOKUAWEOWEO.

The Summit Crater of Mauna Loa, Island of Hawaii.

Area, 3.70 square miles, or 2,370 acres.
 Circumference, 50,000 feet, or 9.47 miles.
 Length, 19,500 feet, or 3.7 miles.
 Width, 9,200 feet, or 1.74 miles. Elevation of summit, 13,675 feet.

DIMENSIONS OF HALEAKALA.

The great Crater of Maui, the largest in the world.

Area, 19 square miles, or 12,160 acres.
 Circumference, 105,600 feet, or 20 miles.
 Extreme Length, 39,500 feet, or 7.48 miles.
 Extreme Width, 12,500 feet, or 2.37 miles.
 Elevation to summit, 10,032 feet.
 Elevation of principal cones in crater, 8,032 and 1,572 feet.
 Elevation of cave in floor of crater, 7,380 feet.

DIMENSIONS OF IAO VALLEY, MAUI.

Length (from Wailuku), about 5 miles.
 Width of Valley, 2 miles.
 Depth, near head, 4,000 feet.
 Elevation of Puu Kukui above head of Valley, 5,790 feet.
 Elevation of Crater of Eke, above Waihee Valley, 4,500 feet.

Standard and Local Time.

The Standard Time of the Hawaiian Islands is that of Longitude $157^{\circ} 30' W.$, 10 h. 30 m. slower than Greenwich Time. The time of sunrise and sunset given in the tables is of course local time; to correct this to standard time, add or subtract a correction corresponding with the differences between $157^{\circ} 30'$ and the longitude of the station.

The corrections would be for the following stations:

Niihau	+ 10:8 m	Wailuku, Maui	— 4:0 m
Mana, Kauai	+ 9:0 m	Haiku, Maui	— 4:8 m
Koloa, Kauai	+ 7:9 m	Hana, Maui	— 6:0 m
Kilauea, Kauai	+ 7:3 m	Kailua, Hawaii	— 6:2 m
Waialua, Oahu	+ 2:5 m	Kohala, Hawaii	— 7:0 m
Kahuku, Oahu	+ 2:0 m	Kukuihaele, Hawaii	— 8:0 m
Honolulu, Oahu	+ 1:5 m	Punaluu, Hawaii	— 8:0 m
Kalae, Molokai	— 2:0 m	Ookala, Hawaii	— 9:0 m
Lanai	— 2:5 m	Hilo, Hawaii	— 9:8 m
Lahaina, Maui	— 3:0 m		

LATEST CENSUS—HAWAIIAN ISLANDS.

(From Census Bulletin, Washington, D.C., 1900.)

Total Population by Districts and Islands—Comparative 1900 & 1896

HAWAII.		1900	1896	OAHU.		1900	1896
Hilo	19,785	12,878	Honolulu	39,306	29,920		
Puna	5,128	1,748	Ewa	9,689	3,067		
Kau	3,854	2,908	Waianae	1,008	1,281		
North Kona	3,819	3,061	Waialua	3,285	1,349		
South Kona	2,372	2,327	Koolauloa	2,372	1,835		
North Kohala	4,366	4,125	Koolaupoko	2,844	2,753		
South Kohala	600	558					
Hamakua	6,919	5,680					
	46,843	33,285	KAUAI.		58,504	40,205	
			Waimea	5,714	4,431		
			Niihau	172	164		
MAUI.			Koloa	4,564	1,835		
Lahaina	4,332	2,398	Kawaihau	3,220	2,762		
Wailuku	7,953	6,072	Hanalei	2,630	2,775		
Hana	5,276	3,792	Lihue	4,434	3,425		
Makawao	7,236	5,464					
	24,797	17,726			20,734	15,392	
Molokai and Lanai	3,123	2,412	Total whole group	154,001	109,020		

Comparative Table of Nationality of Population of Hawaiian Islands at Various Census Periods Since 1872.

NATIONALITY.	1872	1878	1884	1890	1896	1900
Natives	49,944	44,088	40,014	34,436	31,019	29,787
Part Hawaiians	1,487	3,420	4,218	6,186	8,485	7,848
Chinese	1,938	5,916	17,937	15,301	19,382	25,762
Americans	889	1,276	2,066	1,928	2,266	7,283
Hawaiian-born Foreigners	849	947	2,040	7,495	13,733	
British	619	883	1,282	1,344	1,538	1,730
Portuguese	395	436	9,377	8,602	8,232	15,675
German	224	272	1,600	1,434	912	1,154
French	88	81	192	70	75	.....
Japanese . . . . .	.....	.....	116	12,360	22,329	61,115
Norwegian . . . . .	.....	.....	362	227	216	410
Other Foreigners	364	666	416	419	424	2,584
Polynesian . . . . .	.....	.....	965	588	409	653
Totals	56,897	57,985	80,578	89,990	109,020	154,001

POPULATION OF HONOLULU AT VARIOUS CENSUS PERIODS

1884	20,487	1896	29,920
1890	22,907	1900	39,306

Foreign Born Population of Hawaii, 1900, Distributed According to Country of Births:

As reported for the Annual by the Census Bureau, Washington, D.C.

COUNTRY	Hawaii	Kauai and Niihau	Lanai and Maui	Molokai	Oahu	Total
Atlantic Islands.....	522	76	154	12	392	1,156
Austria.....	99	26	64	....	36	225
Canada (English).....	79	11	9	2	238	339
China.....	4,202	3,265	2,988	77	11,209	21,741
England.....	142	35	49	6	507	739
Germany.....	135	334	71	11	603	1,154
Ireland.....	25	9	15	4	172	225
Japan.....	21,314	9,736	10,465	382	14,337	56,234
Norway and Denmark.....	31	50	44	6	139	270
Pacific Islands.....	49	63	161	11	309	593
Portugal.....	2,217	727	1,032	6	2,530	6,512
Scotland.....	163	39	39	1	185	427
Spain.....	54	12	27	....	109	202
Sweden.....	40	4	9	2	85	140
Other Countries.....	162	85	64	9	503	823
Total	29,234	14,472	15,191	529	31,354	90,780

*Niihau's share of Foreign born is 3: one each Scotch, Japanese, and one other.

Native Born Population of Hawaii, 1900.

The total native born population of Hawaii is 63,221, which is made up as follows:

Hawaiian.....	29,787	Chinese.....	4,021
Part Hawaiian.....	7,843	Japanese.....	4,881
Caucasians.....	7,283	South Sea Islanders.....	60
Portuguese.....	9,163	Negroes.....	178

Comparative Table of Population, Hawaiian Islands—1853-1900.

ISLANDS.	Census 1853	Census 1860	Census 1866	Census 1872	Census 1878	Census 1884	Census 1890	Census 1896	Census 1900
Hawaii.....	24,450	21,481	19,808	16,001	17,034	24,991	26,754	33,285	46,843
Maui.....	17,574	16,400	14,035	12,334	12,109	15,970	17,357	17,726	24,797
Oahu.....	19,126	21,275	19,799	20,671	20,236	28,068	31,194	40,205	58,504
Kauai.....	6,991	6,487	6,299	4,961	5,634	*8,935	11,643	15,228	20,562
Molokai.....	3,607	2,864	2,299	2,349	2,581	2,614	2,652	2,307	2,504
Lanai.....	600	646	394	348	214	174	174	105	619
Niihau.....	790	647	325	233	177	.....	216	164	172
Kahoolawe.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total...	73,138	69,800	62,959	56,897	57,985	80,578	89,990	109,020	154,001
All Foreign'rs	2,119	2,716	4,194	5,366	10,477	36,346	49,368	69,516	116,366
Hawaiians...	71,019	67,084	58,765	51,531	47,508	44,232	40,622	39,504	37,635

* Including Niihau.

SCHOOL STATISTICS, TERRITORY OF HAWAII.

From Reports of the Superintendent of Public Instruction.

NUMBER OF SCHOOLS, CLASS, ETC., 1902.

ISLANDS	PUBLIC SCHOOLS					PRIVATE SCHOOLS		
	No. of Schools	No. of Teachers	No. of Pupils—Boys	No. of Pupils—Girls	Total No. of Pupils	No. of Schools	No. of Teachers	No. of Pupils
Hawaii.....	56	128	2,367	1,970	4,337	11	36	787
Oahu.....	33	135	2,587	2,090	4,677	29	154	2,763
Maui and Lanai....	30	64	1,180	1,008	2,178	9	27	584
Kauai and Niihau..	15	42	974	780	1,754	4	9	151
Molokai.....	9	11	135	108	243	1	3	44
Totals.....	143	380	7,233	5,956	13,189	54	229	4,329

COMPARATIVE TABLE OF SCHOOL POPULATION, 1900-2.

ISLANDS	No. Schools 1900	IN SCHOOL, 1900			No. Schools 1902	IN SCHOOL, 1902		
		Boys	Girls	Total		Boys	Girls	Total
Hawaii.....	68	2,436	1,987	4,423	67	2,778	2,346	5,124
Maui and Lanai	36	1,253	1,230	2,483	39	1,414	1,349	2,763
Molokai.....	10	202	121	323	10	179	108	287
Oahu.....	62	3,746	2,869	6,615	62	4,132	3,308	7,440
Kauai & Niihau	19	935	756	1,691	19	1,049	856	1,905
Totals.....	195	8,574	6,963	15,537	197	9,552	7,967	17,519

NATIONALITY OF PUPILS, 1900-2.

	1902	1900		1902	1900
Hawaiians.....	4,903	4,997	Chinese.....	1,385	1,289
Part Hawaiians.....	2,869	2,631	South Sea Islanders...	.....	28
Americans.....	812	698	Japanese.....	1,993	1,352
English.....	240	232	Porto Ricans.....	596	.....
Germans.....	337	320	Other Foreigners.....	151	87
Portuguese.....	4,124	3,809			
Norwegians.....	98	114	Total.....	17,519	15,537

The nationality of teachers in all schools of the Islands, 1902, was as follows: Hawaiian, 79; Part Hawaiian, 70; American, 329; British, 56; German, 11; French, 10; Scandinavian, 15; Portuguese, 23; Belgian, 3; Chinese, 6; Japanese, 5; other Foreigners, 2; total, 609.

MONTHLY MORTALITY TABLE BY AGES BY ISLAND DIVISIONS.

FOR FISCAL YEAR ENDING JUNE, 1902, Compiled from Report of Board of Health.

	Un- der 1 yr.	To 5	To 10	To 20	To 30	To 40	To 50	To 60	To 70	Over 70	Total
July—Oahu	31	9	2	6	19	16	11	1	11	1	107
“ Maui*.....	6	5	1	3	8	6	3	3	4	1	40
“ Hawaii.....	18	8	3	2	7	7	5	3	..	6	59
“ Kauai.....	2	1	..	1	4	1	2	1	1	1	14
Aug.—Oahu.....	30	14	4	8	14	22	18	4	6	8	128
“ Maui.....	11	4	1	4	12	6	4	1	4	2	49
“ Hawaii.....	19	9	2	2	9	12	4	3	5	3	68
“ Kauai.....	4	3	2	..	4	1	..	2	..	1	17
Sep.—Oahu.....	31	27	4	6	17	16	6	5	6	4	122
“ Maui.....	8	6	1	2	11	8	5	1	3	5	50
“ Hawaii.....	18	9	..	2	13	10	4	1	3	3	63
“ Kauai.....	2	2	3	..	9	5	1	1	2	2	27
Oct.—Oahu.....	22	7	2	8	17	10	5	4	5	7	87
“ Maui.....	11	2	1	3	5	7	3	2	7	2	43
“ Hawaii.....	19	6	1	7	5	8	5	..	6	3	60
“ Kauai.....	7	1	3	2	3	6	3	3	1	..	29
Nov.—Oahu.....	25	10	..	7	15	11	6	6	5	3	88
“ Maui.....	14	4	2	3	9	12	2	2	3	4	55
“ Hawaii.....	20	8	2	5	4	8	2	3	5	3	60
“ Kauai.....	1	1	2	2	4	3	1	1	..	1	16
Dec.—Oahu.....	31	11	2	7	17	15	13	7	3	7	113
“ Maui.....	17	6	3	4	7	10	12	5	2	8	74
“ Hawaii.....	13	9	2	..	9	14	9	3	4	3	66
“ Kauai.....	3	3	3	1	2	2	2	2	2	..	20
Jan.—Oahu.....	35	14	..	3	16	13	10	3	6	8	108
“ Maui.....	3	7	2	9	6	3	4	4	..	6	44
“ Hawaii.....	11	5	4	2	10	8	3	5	4	4	56
“ Kauai.....	9	2	2	1	11	5	2	3	1	1	37
Feb.—Oahu.....	15	8	..	9	12	12	12	7	6	9	90
“ Maui.....	9	3	3	8	11	4	5	2	6	3	54
“ Hawaii.....	10	2	..	7	7	6	4	4	5	..	45
“ Kauai.....	3	4	2	1	7	4	1	1	1	1	25
Mar.—Oahu.....	26	6	2	8	14	15	11	6	5	6	99
“ Maui.....	11	3	1	3	8	6	3	4	2	3	44
“ Hawaii.....	9	4	..	5	7	7	7	3	4	5	51
“ Kauai.....	5	1	..	3	7	3	3	3	1	3	29
Apr.—Oahu.....	30	8	2	4	14	15	16	9	4	4	106
“ Maui.....	5	3	..	1	5	6	4	3	4	4	35
“ Hawaii.....	13	4	..	9	8	6	5	2	4	1	52
“ Kauai.....	6	2	1	..	3	7	1	..	1	..	21
May.—Oahu.....	19	9	1	3	13	13	9	6	10	10	93
“ Maui.....	6	2	..	3	8	4	2	..	2	4	31
“ Hawaii.....	13	5	1	..	4	7	9	2	2	4	47
“ Kauai.....	7	2	1	..	6	5	4	3	2	2	32
Jun.—Oahu.....	20	9	3	5	16	8	9	8	4	7	89
“ Maui.....	8	3	..	5	9	7	1	..	1	2	36
“ Hawaii.....	12	3	1	5	5	5	1	3	3	3	41
“ Kauai.....	7	2	1	3	2	5	3	1	1	2	27
Total.....	655	276	73	182	433	390	255	146	167	170	2,747

* Figures for Maui embrace also Molokai and Lanai, while Niihau is included in those of Kauai.

VITAL STATISTICS, TERRITORY OF HAWAII.

For twelve months ending June, 1902, and six months to close of the year.
Compiled from Report of Board of Health.

ISLANDS BY DISTRICTS	BIRTHS		MARRIAGES		DEATHS	
	12 mos.	6 mos.	12 mos.	6 mos.	12 mos.	6 mos.
OAHU						
Honolulu.....	685	344	429	189	1,006	488
Ewa.....	208	98	21	9	136	84
Waianae.....	25	20	0	0	14	6
Waialua.....	41	24	19	4	50	15
Koolau.....	33	8	18	7	24	12
Total.....	992	494	487	209	1,230	605
MAUI AND MOLOKAI						
Wailuku, Kihei, Kula	126	61	190	20	167	74
Lahaina.....	69	14	47	8	64	27
Makawao.....	115	64	53	20	70	24
Hana.....	117	59	18	7	76	33
Kona, Molokai.....	19	13	4	1	32	6
Kalaupapa, Molokai..	16	4	9	6	146	48
Total.....	342	215	321	62	555	212
HAWAII						
Hilo and N. Hilo.....	211	65	168	80	271	106
N. Kohala.....	120	51	59	31	114	37
S. Kohala.....	1	1	13	7	3	2
Hamakua.....	116	82	50	37	87	33
N. Kona.....	56	22	25	8	45	20
S. Kona.....	29	31	26	1	32	13
Kau.....	69	34	32	11	54	38
Puna.....	59	0	7	6	35	19
Olaa.....	18	4	3	0	27	12
Total.....	679	290	383	181	668	280
KAUAI						
Waimea.....	85	34	27	7	83	30
Koloa.....	76	21	18	18	89	51
Lihue.....	48	40	27	17	24	19
Kealia.....	57	35	28	10	41	14
Hanalei.....	67	41	33	10	57	36
Total.....	333	171	133	62	294	150
SUMMARY						
Oahu.....	992	494	487	209	1,230	605
Maui and Molokai....	342	215	321	62	555	212
Hawaii.....	679	290	383	181	668	280
Kauai.....	333	171	133	62	294	150
Totals.....	2,346	1,170	1,324	514	2,747	1,247

HAWAII'S COMMERCE WITH FOREIGN COUNTRIES.

Total Import and Export Values for 1902 and 1903.

COUNTRIES	IMPORTS		DOMESTIC EXPORTS	
	1902	1903	1902	1903
Belgium	\$ 14,266	\$ 65,791		
British Columbia...	102,824	63,881	\$ 7,820	\$ 2,509
Canada	6,985	4,787		
Denmark		136		
Great Britain	259,311	507,350		158
Germany	432,498	387,470	1,461	500
France	9,231	4,975		
Italy	1,106	264		150
Netherlands	2,847	371		40
Portugal	626	15		
Sweden and Norway.	167	492		
West Indies—Cuba.	460	1,685		
Chile	271,173	307,300		
China	2,986	3,492	105	1,768
East Indies	437,967	325,204		
Hong Kong, ...	197,083	158,805	5,752	4,801
Japan	910,686	970,591	7,029	5,371
Australasia.....	382,594	329,164	19,491	11,179
Oceania	936	2,972	2,350	445
Philippines	2,447	7,262	10,357	58
United States.....	*19,000,000	10,840,472	24,700,429	26,201,175
All other	390	6		50
Total	\$22,036,583	\$13,982,485	\$24,754,794	\$26,228,204
Foreign mdse. to foreign ports.....			\$ 9,182	\$ 5,540
Foreign mdse. to U. S. ports.....			29,631	41,694
Grand total of exports.....			\$24,793,607	\$26,275,438

Quantity and Value Domestic Exports to the United States and Other Countries, 1903.

PRODUCTS	TO UNITED STATES		TO OTHER COUNTRIES	
	Quantity	Value	Quantity	Value
Sugar	lbs. 774,825,420	\$25,310,684		
Coffee.....	" 1,852,162	227,286	78,392	\$ 9,574
Hides and Skins "	917,663	80,190		
Fruits, green and preserved.....		74,342		248
Honey.....		15,280		144
Fibres.....		10,869		
Rice.....	..lbs. 234,930	10,218	50	2
Wood, Timber.....		6,347		
Wool.....	..lbs. 364,794	43,552		
Vegetables.....		3,001		
Bones, etc.....		633		
Salt.....	..lbs. 63,450	382		
Sundries.....		376,697		17,061
Total dom. prod's.		\$26,159,481		\$ 27,029
Total for'n prod's.		41,694		
Total.....		\$26,201,175		\$ 27,029

*Estimated.

Import Values from U. S. and Foreign Countries, for Fiscal Year Ending June, 1903.

ARTICLES	FROM UNITED STATES	FROM FOREIGN COUNTRIES	
		Dutiable	Free
Agricultural Implements.....	\$ 20,191		
Animals	65,620	\$ 187	\$ 574
Art Works.....	2,435	588	
Books, Maps, etc.....	64,421	3,182	3,604
Bones, Horns, etc.....		178	7
Breadstuffs.....	1,456,571	21,800	1,289
Bricks.....	20,028		
Brooms and Brushes.....	17,138	1,918	
Buttons		372	
Candles	12,342		
Carriages, Cars, etc., and parts of	89,326		
Cement.....		17,487	
Chemicals, Drugs, Dyes, etc.....	197,680	361,879	385,338
Chickory.....		556	
Clocks and Watches.....	15,919	409	
Coal.....	128,765	388,490	
Cocoa and Chocolate.....	12,770	227	
Coffee, prepared.....	16,801		
Copper and manufactures of	34,757	117	
Cotton and manufactures of	1,022,116	92,947	3
Earthen, Stone and Chinaware.....	55,552	12,690	
Eggs.....	19,164	3,124	
Fertilizers.....	495,724		202,642
Fibers, Textile Grasses, manufactures of	96,408	337,373	6
Fish.....	234,960	62,017	28,159
Fruits and Nuts.....	150,859	13,995	58
Fur and Fur Skins.....		170	25
Glass and Glassware.....	112,150	5,199	
Gunpowder and other Explosives.....	106,535		
Hair and manufactures of		1,279	9
Hats, Bonnets and materials for.....		9,240	
Hay.....	201,112		
Household and Personal Effects.....			4,689
India Rubber, manuf'rs of, and Gutta Percha	64,315	110,837	
Instruments, etc., for scientific purposes.....	89,141		
Iron and Steel and manufactures of.....	201,519	34,381	519
Sheets and Plates.....	23,597	20,897	
Machinery, Machines, parts of	436,842	4,378	
Nails, Spikes, Pipes, etc., and all other.....	487,547		
Jewelry and manufactures, Gold and Silver.....	150,077	2,093	
Lamps, Chandeliers, etc.....	12,133		
Lead and manufactures of	12,957	1,264	
Leather and manufactures of	321,604	9,411	
Marble, Stone and manufactures of	43,428	437	
Matches.....	20,638		
Matting and Mats.....		6,359	
Metals, manufactures of, N. O. S.....		24,551	
Musical Instruments.....	30,973	2,351	
Naval Stores.....	6,667		
Oil Cloths.....	14,033		

Import Values from U. S. and Foreign Countries for 1903.—
Continued.

ARTICLES	FROM UNITED STATES	FROM FOREIGN COUNTRIES	
		Dutiable	Free
Oils: Mineral, Crude.	\$328,554	\$4,462	.....
Refined, etc.	218,081	.....	.....
Vegetable and all other.	34,198	1,853	\$27,444
Paints, Pigments and Colors.	78,164	718	.....
Paper and manufactures of.	151,885	9,224	.....
Perfumery, etc.	6,587	5,386	.....
Pipes and Smokers' Articles. ....	.....	2,297	.....
Provisions, etc., Beef Products.	85,410	.....	.....
Hog and other Meat Products	266,980	15,556	.....
Dairy Products.	226,944	3,569	.....
Rice and Rice Flour.	102,008	238,585	.....
Salt.	16,154	140	.....
Seeds, n. e. s. ....	.....	3,267	23
Silk and manufactures of.	31,984	33,025	6
Soap.	76,167	253	.....
Spices. ....	.....	200	235
Spirits, etc., Malt Liquors.	135,620	3,470	.....
Spirits distilled.	124,305	24,018	.....
Wines.	174,134	211,987	.....
Straw and Grass, manufactures of. ....	.....	8,220	.....
Sugar, Molasses and Confectionery.	105,746	2,629	.....
Tea. ....	.....	12,680	25,838
Tin, manufactures of.	15,544	.....	.....
Tobacco, manufactures of.	514,141	13,338	.....
Toys.	15,023	3,148	.....
Trunks, Valises, etc.	19,375	.....	.....
Vegetables.	182,946	229,632	.....
Wood and manufactures of. ....	.....	.....	.....
Timber and unmanufactured.	48,639	20	.....
Lumber, Shingles, etc.	460,582	.....	.....
Doors, Sash, Blinds and all other.	129,452	30,699	.....
Furniture, n. e. s.	176,617	416	.....
Wool, manufactures of.	205,618	15,202	.....
Zinc and manufactures of. ....	.....	2,108	.....
All other articles.	291,993	25,812	7,248
Total.	10,787,666	\$2,454,297	\$687,716

Exports, Territory of Hawaii, for Year Ending June 30, 1903.

Domestic produce to foreign countries.	\$ 27,029
Domestic produce to United States.	26,201,175
Foreign produce to United States.	41,694
Foreign produce to foreign countries.	5,540
Total.	\$26,275,438
Total specie exports.	802,838
	\$27,078,276

**Value of Shipments to the United States from Hawaii for
Fiscal Years Ending June 30, 1902, and 1903.**

ARTICLES.	1902	1903
Art Works, paintings, etc.....	\$ 5,116	\$ 10,348
Bones, hoofs, horns, etc.....	600	633
Books and printed matter.....	37,015	12,568
Brass, and manufactures of.....	1,292	2,886
Carriages, etc. and parts of	47,901	5,718
Chemicals, drugs, etc.....	5,941	6,623
Coffee	114,340	227,286
Copper and manufactures of.....	3,433	1,317
Cotton " " " "	14,378	12,107
Earthenware, etc	1,507	837
Fibers and textiles	2,106	10,869
Fish . . . . .	.....	5,579
Fruits	70,844	74,342
Glass and glassware	21,873	8,522
Grease and soap stock	4,494	.....
Hides and skins	78,413	80,100
Honey	5,847	15,280
Instruments for science purposes.....	4,931	8,362
Iron, steel and manufactures of	25,681	38,989
Machinery and parts of.....	65,136	69,164
All other manufactures of iron, etc.....	34,197	25,361
Jewelry	21,245	16,813
Leather and manufactures of.....	3,715	2,782
Marble and stone	2,360	.....
Molasses	2,187	1
Musical instruments and parts	3,290	5,606
Oils	1,144	.....
Paints, varnish, etc	412	.....
Paper and manufactures of	4,597	5,752
Provisions, etc	3,864	.....
Rice	15,347	10,218
Salt	3,604	1,382
Silk, manufactures of	2,765	4,588
Straw and palm leaf, manufactures of.....	3,596	2,831
Sugar.....	23,920,113	25,310,684
Tobacco, manufactures of	5,786	13,249
Vegetables	3,058	3,001
Wood, and manufactures of	54,477	36,918
Wool, raw	38,681	43,552
Wool, manufactures of	3,951	14,790
All other articles	61,192	113,018
Total	\$24,700,429	\$26,201,175
Carried in Am. steam vessels	7,544,574	11,495,536
Carried in Am. sailing vessels	17,155,855	14,705,639

**Total Value of All Imports and Exports, Territory of
Hawaii, for Fiscal Year Ending June 30, 1903.**

	IMPORTS.	EXPORTS.
United States.....	\$12,675,026.00	\$26,242,869.00
Great Britain.....	507,350.00	158.00
British Colonies.....	726,347.00	16,429.00
Germany	387,470.00	1,232.00
Hong Kong.....	158,805.00	7,896.00
Japan.....	970,591.00	6,432.00
Chile	307,300.00	.....
France.....	4,975.00	.....
Other Countries	79,175.00	422.00
Total....	\$15,817,039.00	\$26,275,438.00
Specie.....	1,122,926.00	802,838.00
	\$16,939,965.00	\$27,078,276.00

Shipments received from the United States.....	\$12,675,026.00
Imports from Foreign Countries.....	3,142,013.00
Total.....	\$15,817,039.00
Specie.....	1,122,926.00
	\$16,939,965.00

**Quantity and Value of Domestic Products Shipped to the
United States and Exported to Foreign Countries
for Fiscal Year Ending June 30, 1903.**

ARTICLES.	QUANTITY	VALUE.
Sugar, Raw.....	774,825,420 lbs.	\$25,310,684. 00
Coffee.....	1,930,554 "	236,860 00
Rice.....	234,980 "	10,220. 00
Fresh Fruits.....	.....	66,398. 00
Honey.....	.....	15,424. 00
Hides.....	917,663 "	80,190. 00
Wool, Raw.	364,794 "	43,552. 00
Other .....	.....	464,876. 00
Total Exports Products.....	.....	\$26,228,204. 00
" " Specie.....	.....	802,838. 00
Total.....		\$27,031,042. 00

Customs Receipts for Fiscal Year Ending June 30, 1903.

Import Duties	\$1,129,950. 30
Tonnage Dues.....	22,381. 32
Official Fees.....	1,233. 30
Fines, Penalties and Forfeitures.....	4,844. 91
Storage, Labor and Drayage.....	7,826. 21
Overtime of Officers	857. 55
Immigrant Fund	18,330. 00
Other Collections	8,254. 24
Total	\$1,193,677. 83

Value of Carrying Trade to and from the District of Hawaii for Year Ending June 30, 1903.

NATIONALITY.	IMPORTS	EXPORTS
American	\$13,660,720	\$26,261,003
British	1,114,968	11,642
French	24,989	.....
German	351,328	.....
Norwegian	86,789	.....
Other	578,245	2,793
Total	\$15,817,039	\$26,275,438

Total Number of Vessels Entering and Clearing in the District of Hawaii During Fiscal Year Ending June 30, 1903.

PORTS	COASTWISE*				FOREIGN			
	Entered		Cleared		Entered		Cleared	
	No.	Tons	No.	Tons	No.	Tons	No.	Tons
Honolulu	259	484,267	330	550,566	203	416,226	107	316,583
Hilo	48	49,973	47	52,153	.....	.....	.....	.....
Kahului	7	6,677	12	12,865	6	6,561	2	1,727
Mahukona	17	5,838	19	6,769	.....	.....	.....	.....
Koloa	1	444	22	17,367	.....	.....	.....	.....
Lahaina	10	10,861	12	12,422	.....	.....	1	907
Total	342	558,060	442	652,142	209	422,787	110	319,217

Summary of Above Table.

	ENTERED		CLEARED	
	No.	Tonnage	No.	Tonnage
Coastwise*	342	558,060	442	652,143
Foreign	209	422,787	110	319,217
Total	551	980,847	552	971,359

Vessels Entering and Clearing in the District of Hawaii for Fiscal Year Ending June 30, 1903.

NATIONALITY	Entered	Tonnage	Cleared	Tonnage
American	426	673,418	430	667,718
British	76	178,771	74	176,981
Japanese	29	99,880	29	99,880
Norwegian	5	5,009	6	5,875
German	6	7,218	5	6,065
French	4	7,626	4	7,626
Italian	1	1,626	1	1,626
Russian	1	1,468	1	1,468
Danish	1	2,674	1	2,674
Swedish	2	3,157	1	1,446
Total	551	980,847	552	971,359

*The figures under the title "Coastwise" refer to American vessels doing business between Hawaiian and mainland ports, but do not include vessels engaged in traffic among the Hawaiian Islands.

Vessels Documented in the District of Hawaii, June 30, 1903.

NAME.	TONNAGE.		NAME.	TONNAGE.	
	Gross.	Net.		Gross.	Net.
Sch. Ada.....	27	27	Sch. Kawailani.....	24	24
Gasco. S. Brothers.....	7	5	Slp. Kaiulani.	13	12
S. S. Chas. Counselman...	123	30	S. S. Leslie Baldwin	23	23
Sch. Chas. Levi Woodbury	105	100	“ Lehua.....	176	129
“ Concord.....	98	71	Sch. Luka.....	122	70
S. S. Claudine.....	840	609	“ Lady.....	20	29
“ Eclipse.....	211	163	“ Moi Wahine...	95	75
Slp. Eagle.....	6	6	“ Mokihana	15	15
S. S. Helene.....	618	392	S. S. Mokolii.....	72	49
“ Hanalei.....	666	502	“ Mikahala.....	444	354
“ Hawaii.....	301	227	“ Malolo.....	32	24
“ Hilo.....	13	7	“ Mauna Loa.....	850	536
“ Iwalani.....	588	239	“ Maui.....	619	393
“ James Makee.....	301	137	“ Niihau.....	341	201
“ J. A. Cummins.....	79	75	“ Noeau.....	294	221
Sch. Julia E. Whalen*...	101	96	“ Rover.....	44	30
S. S. Kaena.....	35	24	Sch. Rob. Roy.....	17	17
“ Kinau.....	975	773	S. S. Talula.....	13	9
“ Kaiulani.....	384	243	“ W. G. Hall....	505	380
“ Kauai.....	366	265	“ Waialele.....	268	176
“ Ke Au Hou.....	263	192	“ Waiakea.	10	6
Sch. Kauikeaouli.....	140	73	“ Water Witch..	9	6
“ Ka Moi.....	108	108			

*Lost October 22nd, 1903, at Midway Island.

Quantity and Value of Sisal Fibre Exports, 1903.

Report of Hawaiian Fibre Company on its first crop, furnished the Annual by
W. C. Weedon, its Secretary and Treasurer.

Jan. 16, 1903.	50 bales,	25,220 lbs. at 8 cts.....	\$2,017.60
Mar. 13,	“ 50 “	24,110 lbs. at 7 cts.....	1,687.70
May 11,	“ 100 “	47,210 lbs. at 8 cts.....	3,776.80
May 23,	“ 10 “	4,670 lbs. at 8 cts.....	373.60
Total,	210	101,210 lbs.	\$7,855.70

Average weight of bales, a fraction under 482 lbs.; average price a little over 7 3-4 cents per lb. net over exchange and commission.

The original nursery of 7 3-4 acres and one field of 109 1-2 acres were cropped, with a few scattering plants cut from one other field, resulting as above:

The field of nursery plants were eight years old, planted 7×7 feet apart; those of the large field were three years old, planted 9×11 feet apart, this being a rocky, coral surface. The ideal distance, where the nature of the ground will permit, is 7×8 feet, with a row skipped at intervals for driveways.

Hawaii's Annual Trade Balance, Etc., 1879 to 1903.

Year.	Imports.	Exports	Excess Export Values.	Custom House Receipts.
1880	\$3,673,268.41	\$4,968,444.87	\$1,295,176.46	\$402,181.63
1881	4,547,978.64	6,885,436.56	2,337,457.92	523,192.01
1882	4,974,510.01	8,299,019.70	3,324,506.69	505,390.98
1883	5,624,240.09	8,133,343.88	2,509,103.79	577,332.87
1884	4,637,514.22	8,856,610.30	4,219,096.08	551,736.59
1885	3,830,544.58	9,158,818.01	5,328,273.43	502,337.38
1886	4,877,738.73	10,565,885.58	5,688,146.85	580,444.04
1887	4,943,840.72	9,707,047.33	4,763,206.61	595,002.64
1888	4,540,887.46	17,707,598.76	7,166,711.30	546,142.63
1889	5,438,790.63	13,874,341.40	8,435,560.77	550,010.16
1890	6,962,201.13	13,142,829.48	6,180,628.35	695,956.91
1891	7,439,482.65	10,258,788.27	2,819,305.62	732,594.93
1892	4,028,295.31	8,060,087.21	4,031,791.90	494,385.10
1893	4,363,177.58	10,818,158.09	6,454,980.51	545,754.16
1894	5,104,481.43	9,140,794.56	4,036,313.13	522,855.41
1895	5,339,785.04	8,474,138.15	3,134,353.11	547,149.04
1896	6,063,652.41	15,515,230.13	9,451,577.72	656,895.82
1897	7,682,628.09	16,021,775.19	8,339,147.10	708,493.05
1898	10,368,815.09	17,346,744.79	6,977,929.70	896,675.70
1899	16,069,576.96	22,628,741.82	6,559,164.86	1,295,628.95
1900 ¹	10,231,197.58	14,404,496.16	4,173,298.58	597,897.14
1901 ²	24,964,693.43	29,342,697.00	4,378,003.57	1,264,862.78
1902	22,036,583.00	24,793,735.00	2,757,152.00	1,327,518.23
1903	13,982,485.00	26,275,438.00	12,292,953.00	1,193,677.83

1 Five and one-half months to June 14th. 2 Twelve and one-half months to June 30, 1901. Imports from U. S. ports for 1901 estimated at \$22,000,000, and for 1902 at \$19,000,000.

Table of Fire Claims

SHOWING NATIONALITY AND NUMBER OF CLAIMANTS, AND THE AMOUNTS CLAIMED AND AWARDED.

NATIONALITY	No. OF CLAIMS	AMOUNT CLAIMED	AMOUNT AWARDED
Japanese.....	2,574	\$ 639,742.99	\$ 333,730.10
Chinese.....	3,728	1,761,112.04	845,480.80
Hawaiians.....	278	342,526.84	144,242.50
Portuguese.....	19	81,658.47	24,117.45
Other Nationalities.....	128	272,829.76	125,602.15
Fire Insurance Companies	21	77,262.80	.....
Total.....	6,748	\$ 3,175,132.90	\$ 1,473,173.00

Of the amount awarded, there had been paid, up to Sept. 30, 1903, the sum of \$1,325,985.59.

Hawaiian Sugar Plantation Statistics.

QUANTITY AND VALUE OF PLANTATION PRODUCTS EXPORTED, FROM 1875.

YEAR	SUGAR		MOLASSES		TOTAL EXPORT VALUE
	POUNDS	VALUE	GALLONS	VALUE	
1875	25,080,182	\$1,216,388.82	93,722	\$12,183.86	\$1,228,572.68
1876	26,072,429	1,272,334.53	130,073	19,510.95	1,291,845.48
1877	25,575,965	1,777,529.57	151,462	22,719.30	1,800,248.87
1878	38,431,458	2,701,731.50	93,136	12,107.68	2,713,839.18
1879	49,020,972	3,109,566.66	87,475	9,622.52	3,119,188.91
1880	63,584,871	4,322,711.48	198,355	29,753.52	4,352,464.73
1881	93,789,483	5,395,399.54	263,587	31,630.44	5,427,020.98
1882	114,177,938	6,320,890.65	221,293	33,193.95	6,354,084.60
1883	114,107,155	7,112,981.12	193,997	34,819.46	7,147,800.58
1884	142,654,923	7,328,896.67	110,530	16,579.50	7,345,476.17
1885	171,350,314	8,356,061.94	57,941	7,050.00	8,363,111.94
1886	216,223,615	9,775,132.12	113,137	14,501.76	9,789,633.88
1887	212,763,647	8,694,964.07	71,222	10,522.76	8,705,480.83
1888	235,888,346	10,818,883.09	47,965	5,900.40	10,824,783.49
1889	242,165,835	13,089,302.10	54,612	6,185.10	13,095,487.20
1890	259,789,462	12,159,585.01	74,926	7,603.29	12,167,188.30
1891	274,983,580	9,550,537.80	55,845	4,721.40	9,555,258.20
1892	263,636,715	7,276,549.24	47,988	5,061.07	7,281,610.34
1893	330,822,879	10,200,958.37	67,282	5,928.96	10,206,887.33
1894	306,684,993	8,473,009.10	72,979	6,050.11	8,479,059.21
1895	294,784,819	7,975,590.41	44,970	3,037.83	7,978,628.24
1896	443,569,282	14,932,172.82	15,885	1,209.72	14,933,382.54
1897	520,158,232	15,390,422.13	33,770	2,892.72	15,393,314.85
1898	444,963,036	16,614,622.53	14,537	919.18	16,615,541.71
1899	545,370,537	21,898,190.97	11,455	358.55	21,898,549.52
1900 ¹	344,531,173	13,919,400.21	120	10.00	13,919,410.21
1901 ²	690,882,132	27,094,155.00	93,820	4,615.00	27,098,770.00
1902	720,553,357	23,920,113.00	48,036	2,187.00	23,922,300.00
1903	774,825,420	25,310,684.00	10	1.00	25,310,685.00

¹ Five and one-half months to June 14.
1900, to June 30, 1901.

Twelve and one-half months, June 14

Plantation Labor Statistics

COMPARATIVE TABLE SHOWING NATIONALITY AND NUMBER SUGAR PLANTATION LABORERS.

[Compiled From Official Reports]

NATIONALITY	1894	1895	1896	1897	1898	1899	1901	1902
Caucasians.....	563	473	600	675	979	806	991	1,032
Chinese.....	2,786	3,847	6,289	8,114	7,200	5,979	4,976	3,937
Hawaiians.....	1,903	1,584	1,615	1,497	1,482	1,326	1,470	1,493
Japanese.....	13,884	11,584	12,893	12,068	16,786	25,644	27,537	31,029
Negroes.....	.....	.....	.....	.....	.....	.....	55	20
Porto Ricans.....	.....	.....	.....	.....	.....	.....	2,095	2,036
Portuguese.....	2,177	2,499	2,268	2,218	2,064	2,153	2,417	2,669
Sea Islanders.....	181	133	115	81	68	79	46	26
Total.....	21,294	20,120	23,780	24,653	28,579	35,987	39,587	42,242

BONDED DEBT, JUNE 30th, 1903.**ACT OF OCTOBER 15, 1886.**

Loan in London	\$ 980,000 00	
Stock A 6 per cent Bonds..	1,000 00	\$ 981,000 00

ACT OF SEPTEMBER 7, 1892.

Stock O 6 per cent Bonds....		100 00
------------------------------	--	--------

ACT OF JUNE 13, 1896.

Stock A 5 per cent Bonds	\$ 876,000 00	
Stock E 5 per cent Bonds	9,000 00	
Stock O 5 per cent Bonds ...	1,000 00	
Stock U 5 per cent Bonds ...	50,000 00	936,000 00
Fire Claims Bonds		162,000 00

Total Bonds Outstanding \$2,079,100 00

STATEMENT OF BONDED DEBT, JULY 1, 1903.

Hawaiian Bonded Debt assumed by the U. S. Gov't.....	\$4,000,000 00
Amount of Public Debt paid by the U. S. Gov't, to June 30th, 1902	\$2,250,300 00
Amount of Postal Savings Bank Indebtedness paid by the U. S. Gov't. to June 30th, 1902...	764,570 31

Total of Hawaiian Bonded Debt
paid by the U. S. Gov't. to
June 30th, 1902 3,014,870 31

Balance of Hawaiian Bonded
Debt to be paid by the U. S.
Gov't.... \$ 985,129 69

Total Hawaiian Bonded Debt
which the Territory of Hawaii
assumes \$1,093,970 31

MORTALITY TABLE 1901-1902 BY NATIONALITY.

Continued from pages 21-22.

NATIONALITY	OAHU		MAUI AND MOLO- KAI	HAWAII	KAUAI	TOTAL
	Hono- lulu	Other Dist'cts				
American.....	63	3	9	6	5	86
Hawaiian.....	411	57	323	236	84	1,111
British.....	28	4	1	4	0	37
Chinese.....	180	15	36	27	17	275
Japanese.....	177	104	116	259	117	773
Portuguese.....	86	23	36	72	19	236
Others.....	61	18	34	64	52	229
Total.....	1,006	224	555	668	294	2,747

Internal Taxes for Biennial Periods, 1878-1894; Since, Annual.

(Compiled from Official Reports.)

PERIODS	REAL ESTATE	PERSONAL PROPERTY	POLL	HORSES	MULES	DOGS	CARRIAGES	SEAMEN	ROADS AND CARTS	SCHOOL	TOTALS
1878.	\$ 94,584	\$ 94,378	\$ 28,722	\$47,564	\$3,053	\$16,465	\$ 4,865	\$ 2,114	\$ 39,418	\$ 54,106	\$ 385,269
1880.	143,716	155,944	35,484	43,399	Insurance	15,173	5,780	815	64,940	67,472	532,723
1882.	187,929	208,096	45,998	42,819		13,965	7,125	642	90,041	87,322	683,937
1884.	253,100	254,286	53,964	21,975	1,941	13,924	8,750	402	103,054	100,278	780,674
1886.	227,193	262,307	61,745	†	3,303	13,315	10,635	114	118,256	115,298	812,167
1888.	232,362	298,974	63,115		6,279	11,985	11,835		120,872	119,565	886,967
1890.	339,390	329,908	69,116		3,063	14,100	13,940		132,286	131,160	1,032,963
1892.	358,745	341,205	78,964		4,156	13,660	44,628		152,137	151,906	1,115,401
1894.	338,894	213,126	78,990		3,867	11,744	11,980	Penalty and Costs	152,268	152,247	1,068,592
1895.	167,083	151,580	39,050		1,850	4,698	4,427	3,922	74,891	75,082	522,583
1896.	196,608	164,272	43,663		1,803	5,971	5,425	7,297	84,183	83,470	592,892
1897.	240,971	210,194	46,655		1,887	6,302	5,889	7,255	90,297	89,443	698,844
1898.	246,828	242,719	47,973			7,313	5,849	10,375	101,868	98,814	759,703
1899.	268,203	266,621	49,580		2,185	6,248	5,717	8,476	105,814	98,974	811,818
1899.	383,031	377,730	69,303		2,882	6,019	6,083	10,099	145,130	138,429	1,138,706
1900.	444,062	490,393	49,922	INCOME	3,224	4,136	7,387	9,294	107,070	99,838	1,215,326
1901.	532,637	571,249	46,299	287,367	3,846	4,325	8,470	11,111	100,211	92,592	1,658,107
1902.	560,456	592,325	51,009	205,097	4,685	4,787	9,522	10,534	110,300	102,016	1,651,033

† Included in personal property.

Annual Internal Taxes, from 1878.

1878 Taxes Collected	\$245,387	Tax per capita*	\$4.23	1891 Taxes Collected	\$555,428	Tax per capita*	\$5.85
1879	290,380	"	4.58	1892	529,150	"	5.50
1880	317,872	"	4.76	1893	539,412	"	5.37
1881	367,004	"	5.18	1894	522,583	"	5.14
1882	379,071	"	5.29	1895	592,692	"	5.62
1883	417,794	"	5.16	1896	698,844	"	6.32
1884	409,000	"	5.07	1897	759,704	"	6.54
1885	432,656	"	5.09	1898	811,818	"	6.45
1886	467,719	"	5.41	1899	1,138,706	"	7.40
1887	417,103	"	4.67	1900	1,215,326	"	7.94
1888	482,938	"	5.71	1901	1,658,107	"	10.76
1889	537,494	"	6.19	1902	1,651,033	"	10.72
1890	560,757	"	6.23				

* Omitting fractions.

**Table of Receipts, Expenditures, and Public Debt of Hawaii,
for Biennial Periods Up to 1894, then Annually.**

YEARS	REVENUE	EXPENDITURES	CASH BALANCE IN TREASURY	PUBLIC DEBT
1856.....	\$ 419,288 16	\$ 424,778 25	\$ 28,096 84	\$ 22,000 00
1858.....	537,223 86	599,879 61	349 24	60,679 15
1860.....	571,041 71	612,410 55	13,127 52	128,777 32
1862.....	528,039 92	606,893 33	507 40	188,671 86
1864.....	538,445 34	511,511 10	22,583 29	166,649 09
1866.....	721,104 30	566,241 02	169,059 34	182,974 60
1868.....	825,498 98	786,617 55	163,576 84	120,815 23
1870.....	834,112 65	930,550 29	61,580 20	126,568 68
1872.....	912,130 74	969,784 14	56,752 41	177,971 29
1874.....	1,136,523 95	1,192,511 79	746 57	355,050 76
1876.....	1,008,956 42	919,356 93	89,599 49	459,187 59
1878.....	1,151,713 45	1,110,471 90	130,541 04	444,800 00
1880.....	1,703,736 88	1,495,697 48	338,880 44	388,900 00
1882.....	2,070,259 94	2,282,599 33	126,541 05	299,200 00
1884.....	3,092,085 42	3,216,406 05	2,220 42	898,800 00
1886.....	3,010,654 61	3,003,700 18	9,174 85	1,065,600 00
1888.....	4,812,575 96	4,712,285 20	109,465 60	1,936,500 00
1890.....	3,632,196 85	3,250,510 35	491,152 10	2,599,502 94
1892.....	3,916,880 72	4,095,891 44	312,141 38	3,217,161 13
1894.....	3,587,204 98	3,715,232 83	184,113 53	3,417,459 87
1894.....	1,972,135 43	1,854,053 08	302,676 27	3,574,030 16
1895.....	2,050,729 41	2,284,179 92	69,225 76	3,764,335 03
1896.....	2,383,070 78	2,137,103 38	315,193 16	3,914,608 35
1897.....	2,659,434 16	2,617,822 89	456,804 43	4,390,146 65
1898.....	2,709,489 12	2,299,937 57	740,280 21	4,457,605 85
1899.....	3,854,231 50	3,038,638 38	1,531,784 29	4,890,351 49
1900.....	2,772,871 87	3,727,926 28	624,471 25	4,226,374 61
1901.....	2,549,167 78	2,262,036 48	287,131 30	939,970 31
1902.....	2,950,262 58	3,159,479 52	77,914 36	1,093,970 31

Amount of Investments, Territory of Hawaii.

Summary table, showing the estimated amount of American capital invested in the various enterprises throughout the Islands, Jan. 1, 1902:

	Total Capitalization	Amt. Amer. Investments	All Other Nationalities
Sugar Plantation Interests....	\$ 74,694,000	\$ 56,020,500	\$ 18,673,500
Railroad Interests	5,000,000	5,000,000	.....
Foreign Corporations..	2,662,500	1,950,000	712,500
Mercantile, General, Ranch and other enterprises	38,201,570	25,467,713	12,733,857
Total.....	\$ 120,558,070	\$ 88,438,213	\$ 32,119,857

The more detailed exhibit of enterprises, classified, will be found in the Annual for 1903, page 27.

Summary of Meteorological Observations, Honolulu, 1902-'03.

Compiled from Records of Weather Bureau, by R. C. Lydecker.

MONTH	BAROMETER		RAIN- FALL	REL. HUM.		TEMPERATURE						ABSO. HUM.	Cloud Wind	
	9 a.m.	3 p.m.		9 a.m.	9 p.m.	Min.	Max.	6 a.m.	2 p.m.	9 p.m.	Aver.			
													Gr. to Cu. ft.	Amt.	Force
July.....	30.001	29.945	2.87	70.5	76.4	72.4	83.8	74.3	82.5	75.9	77.6	7.42	4.0	2.7
August.....	30.000	29.942	1.74	69.0	72.0	74.2	83.7	76.0	82.4	77.0	78.5	7.32	4.2	3.6
September.....	29.985	29.907	2.27	70.1	78.7	71.6	83.5	73.4	82.5	75.7	77.2	7.51	3.7	1.9
October.....	30.013	29.925	2.59	69.7	76.0	70.3	81.8	72.2	80.2	74.8	75.8	7.17	3.3	2.1
November.....	29.983	29.897	9.80	74.1	80.8	68.6	78.4	70.5	77.2	72.2	73.3	6.95	5.5	2.2
December.....	29.980	29.896	10.20	75.4	80.3	66.0	75.7	67.8	74.7	69.8	70.0	6.39	5.2	2.3
January.....	30.070	29.970	4.05	71.1	77.7	63.5	75.5	67.0	74.4	68.0	69.8	5.89	4.5	2.1
February.....	30.048	29.957	5.86	68.3	76.0	61.3	73.2	64.1	71.9	66.2	67.3	5.24	4.7	2.7
March.....	30.011	29.930	1.03	68.5	75.5	61.3	74.5	63.0	73.0	66.1	67.3	5.32	4.2	1.8
April.....	30.042	29.968	2.35	69.1	75.7	67.0	77.0	69.1	75.7	70.9	71.9	6.22	5.1	3.2
May.....	30.078	30.010	1.86	67.0	72.1	69.0	80.0	71.3	78.3	72.9	74.2	6.39	4.8	3.0
June.....	30.017	29.961	1.36	66.1	73.8	69.9	82.2	72.9	80.7	74.3	76.0	6.74	3.8	2.3
Year.....	30.019	29.942	45.98	69.9	76.3	67.9	79.1	70.1	77.8	72.0	73.2	.55	4.4	2.5

Mean pressure for year, 29.981.

TABLE OF RAINFALL, PRINCIPAL STATIONS.

From Government Survey Weather Service Records.

STATION	OBSERVER	1902					
		July	Aug.	Sept.	Oct.	Nov.	Dec.
HAWAII.							
Waiakea.....	C. C. Kennedy..	12.82	18.39	10.18	12.37	10.36	15.40
Hilo (Town)....	L. C. Lyman....	8.49	20.85	10.15	12.12	12.32	15.48
Kaumana.....	J. E. Gamalielson	13.80	34.78	15.00	16.56	14.01	16.48
Pepeekeo.....	W. H. Rogers....	11.75	15.74	12.25	11.52	18.01	19.15
Hakalau.....	Geo. Ross.....	11.88	18.40	15.03	12.13	19.15	19.00
Laupahoehoe...	E. W. Barnard..	9.72	27.86	11.26	11.78	24.05	27.20
Ookala.....	Mrs. W. G. Walker	4.48	20.11	9.38	10.14	15.61	23.48
Kukaiau.....	E. Madden.....	2.69	14.66	8.34	6.95	13.45	24.99
Paauhau.....	J. Gibb.....	1.49	8.29	5.30	4.62	8.79	19.00
Honokaa.....	J. M. Muir.....	1.22	9.59	6.00	4.75	8.96	19.64
Waimea.....	E. W. Lyons....	1.04	6.16	2.66	2.37	5.56	16.84
Kohala.....	B. D. Bond.....	3.13	6.80	4.63	5.93	7.40	13.62
Holualoa.....	L. S. Aungst....	11.97	5.18	10.27	9.03	2.40	5.61
Kealakekua....	S. H. Davis.....	13.23	5.17	9.18	11.20	3.67	6.83
Naahelu.....	G. C. Hewitt....	1.70	2.28	2.79	2.17	2.60	5.47
Pahala.....	T. C. Wills.....	0.49	2.14	3.31	1.72	4.15	5.08
Volcano House..	St. C. Bidgood..	3.79	14.34	5.00	3.18	12.10	10.79
Olaa.....	Dr. N. Russel...	16.80	36.53	13.86	11.36	13.56	20.95
Kapoho.....	H. J. Lyman....	8.64	10.58	10.80	8.63	10.26	16.14
MAUI.							
Haleakala Rh...	D. Morton.....	1.84	3.13	3.08	4.00	13.74	21.82
Puuomalei.....	A. McKibbin....	2.40	7.80	3.35	6.16	14.95	18.59
Paia.....	J. J. Jones.....	1.32	2.19	1.40	2.15	5.88	14.31
Kula.....	D. Von Tempsky	5.02	4.46	5.61	2.81	4.05	9.93
Haiku.....	D. D. Baldwin...	2.93	5.89	2.74	6.32	10.52	14.70
Kipahulu.....	A. Duisenberg...	8.41	9.52	7.74	9.00	11.28	14.26
Mokulau.....	Jos. Garnett....	5.42	9.08	6.91	6.82	11.87	10.18
Wailuku.....	Bro. Frank.....	0.04	0.40	1.07	0.94	2.83	7.96
OAHU.							
Punahou.....	C. J. Lyons....	2.87	1.74	2.27	2.59	9.80	10.20
Kulaokahua....	W. R. Castle....	1.76	1.04	1.83	2.16	7.11	8.94
Kapiolani Park..	H. McCullum...	0.33	0.42	0.82	0.73	5.38	7.81
Manoa.....	F. N. Parker....	10.49	6.64	6.48	11.75	15.74	15.75
Kalihi-uka.....	Dr. Geo. Huddy..	8.76	7.37	6.22	9.13	21.36	21.35
Nuuanu Ave.....	W. W. Hall....	2.45	1.63	2.36	3.04	9.22	10.38
Nuuanu Valley..	B. F. Cook.....	5.24	4.60	5.22	5.85	12.40	13.50
Luakaba.....	L. A. Moore....	12.66	9.08	10.02	13.12	26.16	26.50
Waimanalo.....	A. Irvine.....	1.68	1.10	1.53	2.69	9.77	13.02
Maunawili.....	Jno. Herd.....	6.13	3.01	6.74	5.42	11.02	19.45
Ahuimanu.....	H. Macfarlane...	6.56	4.72	9.37	5.75	10.54	22.43
Kahuku.....	J. Smeaton.....	2.83	3.54	5.48	3.22	4.33	11.85
Ewa Plantation.	G. H. Renton...	0.35	.00	1.04	1.64	4.56	5.14
Oahu Sugar Co.	Aug. Ahrens....	.00	.00	0.59	0.65	3.34	5.43
Wahiawa.....	L. G. Kellogg...	1.11	1.50	2.63	0.79	6.69	10.15
KAUAI.							
Lihue.....	G. N. Wilcox....	2.38	3.29	2.12	5.06	9.00	12.81
Kealia.....	G. H. Fairchild..	1.14	0.77	1.48	3.96	7.33	14.36
Kilauea.....	C. A. Mann.....	4.85	6.23	2.31	7.19	10.70	14.14
Hanalei.....	W. H. Deverill..	6.55	9.02	3.59	9.32	14.44	27.64
Eleele.....	McBryde Sug.Co.	0.25	0.82	0.78	2.23	3.03	3.83

THROUGHOUT THE HAWAIIAN ISLANDS, 1902-1903.

By C. J. Lyons. Continued from last Annual.

LOCALITY	Ft. Ele.	1903						Total
		Jan.	Feb.	Mar.	Apr.	May	June	
HAWAII.								
Waieka	50	3.39	9.18	3.55	17.69	6.74	4.90	124.97
Hilo	100	4.46	8.46	....	23.17	7.74	4.89	
Kaumana	1250	4.03	9.02	6.49	25.21	11.01	7.11	173.50
Pepeekeo	100	7.14	8.23	7.71	11.86	6.96	3.17	133.49
Hakalau	200	8.88	10.17	10.51	18.45	5.63	3.37	152.60
Laupahoehoe	500	13.76	11.95	10.81	38.48	4.31	1.75	192.93
Ookala	400	11.34	10.98	8.37	23.57	2.24	0.33	140.03
Kukaiau	250	12.96	8.13	11.60	21.72	1.40	0.55	127.44
Paaupau Mill	300	8.42	5.04	9.05	8.87	0.85	0.25	79.97
Honokaa	425	9.07	5.24	9.42	10.20	1.28	0.34	85.71
Waimea	2720	6.23	3.68	2.91	3.49	1.54	0.88	53.36
Kohala (Mission)	521	3.72	3.71	5.21	8.62	1.82	1.01	65.60
Holualoa	1350	2.16	2.16	2.95	5.88	4.29	3.46	65.36
Kealahakua	1580	4.92	1.76	4.13	5.82	4.61	2.29	72.81
Naalehu	650	2.40	1.31	4.42	3.13	2.09	0.99	31.35
Pahala	850	3.20	2.64	9.38	3.00	0.73	1.21	37.05
Kilauea (Volcano Hse.)	4000	4.24	3.02	6.14	9.15	3.11	3.45	78.31
Olaa (Mountain View)	1690	6.38	10.57	6.17	28.72	11.70	7.25	188.85
Kapoha	110	11.07	2.28	7.78	10.16	1.80	2.17	100.31
MAUI.								
Haleakala Ranch	2000	14.21	11.79	3.59	3.64	1.13	1.80	83.77
Puomalei	1400	16.05	10.58	4.61	8.77	2.11	3.30	98.67
Paia	180	12.32	7.32	2.92	4.06	....	2.42	
Erehwon	4000	3.04	5.94	2.08	0.33	2.01		
Haiku	700	12.20	6.88	4.50	9.62	2.62	3.74	82.66
Kipahulu	308	5.07	....	4.95	8.09	....	4.55	
Kaupo	285	4.31	6.63	2.45	7.96	5.09	3.95	80.67
Wailuku	250	7.32	5.58	1.69	3.12	0.03	0.92	31.90
OAHU.								
Punahou (Weather Bu)	47	4.05	5.86	1.03	2.35	1.86	1.36	45.98
Kulaokahua	50	2.56	4.23	0.38	1.69	1.21	1.27	34.18
Kapiolani Park	10	2.30	4.44	0.35	1.14	0.27	0.39	24.38
Woodlawn Dairy	285	5.75	7.77	1.54	8.96	6.94	5.97	103.78
Kalihi Valley	480	6.95	7.77	2.43	12.73	5.12	7.55	116.74
Nuuanu Avenue	50	2.86	5.18	0.67	3.44	2.37	1.34	44.94
Nuuanu Electric Sta.	405	4.05	5.23	0.87	6.73	2.58	3.44	69.71
Nuuanu Water Works	850	9.64	7.98	2.55	17.73	6.94	13.49	155.87
Waimanalo	25	4.00	2.84	0.80	3.17	0.99	1.56	43.15
Maunawili	300	6.73	5.02	1.95	8.26	5.10	6.91	85.74
Ahuimanu	350	6.79	5.27	2.87	10.28	2.90	3.59	91.07
Kahuku	25	1.54	2.73	1.13	0.51	0.99	0.66	38.81
Honouliuli	60	1.39	1.39	0.51	1.12	0.89	0.60	18.63
Waipahu	200	0.42	1.59	0.92	1.00	0.00	2.20	16.14
Wahiawa	900	....	....	0.74	4.08	3.41	1.99	
KAUAI.								
Lihue	200	1.85	2.07	2.02	5.23	1.58	3.84	51.25
Kealia	15	1.23	1.29	0.38	3.01	0.92	....	
Kilauea	325	2.40	2.36	1.66	6.47	0.70	2.11	61.12
Hanalei	10	3.51	4.78	2.52	16.38	1.80	3.87	103.42
Eleele	150	1.87	0.89	....	2.58	....	....	

TABLE OF ANNUAL LICENSE RATES.

TERRITORY OF HAWAII, AS PROVIDED FOR IN THE COUNTY ACT.

ALCOHOL	\$ 50 00	MALT LIQUORS	250 00
AWA	25 00	MERCHANDISE	
AUCTION—County of Oahu..	600 00	Under \$10,000 annual sales	
“ “ Maui	100 00	“ “ “ “ “ “ “ “	50 00
“ “ East		\$10,000 to 100,000 annual	
“ “ Hawaii 100 00		sales	100 00
“ “ West		\$100,000 to 500,000 annual	
“ “ Hawaii 25 00		sales	250 00
“ “ Kauai . 25 00		Exceeding \$500,000 annual	
BANKING	750 00	sales	500 00
BILLIARD—each table	25 00	MILK	2 50
BOWLING—each alley	25 00	NOTARY PUBLIC	5 00
BEEF BUTCHER	25 00	PAWN BROKER	150 00
BOAT—		PHYSICIAN	10 00
With 4 or more oars	8 00	PEDDLING—CAKE	10 00
With less than 4 oars	4 00	MERCHANDISE	50 00
BREWERY	250 00	POISONOUS DRUGS	50 00
DRAY, CART, WAGON, ETC. for		PORK BUTCHER	25 00
freight or baggage	2 50	PUBLIC SHOW—for each Per-	
DRIVER	1 00	formance	5 00
FIRE-ARM—HUNTING	10 00	SALMON	10 00
HOTEL, BOARDING-HOUSE OR		STOCK AND SHARE BUSINESS	100 00
RESTAURANT	50 00	SPIRIT—Dealers	500 00
HACK AND PASSENGER VEHICLE		Retail	1,000 00
for each person for		Wholesale	500 00
which the vehicle has a		TAILOR OR DRESS MAKER	20 00
carrying capacity	1 00	TOBACCO, CIGARS AND CI-	
LIVERY STABLE	50 00	GARETTES	10 00
LODGING OR TENEMENT HOUSE	10 00	WINE, ALE AND BEER	200 00

Championship Races of the Honolulu Rowing Association.

In the Annual contests between the Myrtle and Healani Clubs. One and a half mile straight-away course, Pearl Harbor.

SENIOR CREW.

JUNIOR CREW.

Year	Winner	Time	Winner	Time
1896	Myrtle	10.03	Myrtle	10.21
1897	Myrtle	9.48	Myrtle	10.29 1-4
1898	Healani	10.05 2-5	Healani	10.14 2-5
1899	Myrtle	11.00	Myrtle	10.43
1900	Healani	10.14	Myrtle	11.14
1901	Healani	10.37 1-2	Healani	11.24
1902	Myrtle	10.30 3-5	Myrtle	10.31
1903	Healani	10.05 2-5	Healani	10.16

Challenge Cup Races, Hawaiian Rowing and Yachting Association.

1. Won by yacht Hawaii, July 4, 1889.
2. Won by yacht Hawaii, July 4, 1890.
3. Won by yacht Healani, July 4, 1891.
4. Won by yacht Bonnie Dundee, July 4, 1892.
5. Won by yacht Gladys, September 13, 1899.
6. Won by yacht Gladys, September 19, 1903.

NOTABLE TRIPS OF PACIFIC OCEAN STEAMERS.

TRIP.	MILES.	STEAMER.	DATE.	D.	H.	M.
San Francisco to Honolulu,	2100	Alameda	March 1903	5	14	36
“ “	2100	Australia	April 1893	5	19	53
“ “	2100	China	Aug. 1899	5	9	55
“ “	2100	America Maru	July 1899	5	9	59
“ “	2100	Korea	Nov. 1902	5	6	50
“ “	2100	Korea	Jan. 1903	4	22	15*
Honolulu to San Francisco,	2100	Mariposa	May 1898	5	22	0
“ “	2100	China	Dec. 1898	5	7	41
“ “	2100	China	Nov. 1902	5	2	16*
“ “	2100	Nippon Maru	Jan. 1900	5	2	21
San Francisco to Yokohama,	4764	China	Oct. 1893	9	4	17*
Yokohama to San Francisco,	4537	Korea	Oct. 1902	10	55	15*
Yokohama to Honolulu,	3400	China	Dec. 1897	8	6	15*
“ “	3400	Coptic	Feb. 1902	9	2	17
San Francisco to Sydney,	7297	Alameda	Dec. 1895	21	10	0*
Auckland to Sydney,	1286	Mariposa	Jan. 1886	3	11	50
“ “	1286	Sonoma	Jan. 1902	3	8	40*
Auckland to Honolulu,	3810	Mariposa	April 1882	11	10	0*
“ “	3810	Alameda	July 1897	11	10	35
Sydney to Auckland,	1286	Zealandia	Dec. 1890	3	20	51*
Honolulu to Samoa,	2279	Mariposa	Jan. 1886	6	7	45
“ Auckland,	3810	Zealandia	April 1882	11	23	0
“ Victoria,	2342	Warrimoo	July 1896	6	22	19*
“ “	2342	Miowera	Aug. 1886	7	7	0
Victoria to Honolulu,	2360	Warrimoo	Jan. 1896	7	1	9*
Vancouver to Sydney,	6999	Warrimoo	Nov. 1895	20	15	17*
“ “	6999	Miowera	Sept. 1896	21	9	0
Sydney to Honolulu,	—	Miowera	Aug. 1896	14	0	30
Sydney to Vancouver,	6670	Warrimoo	April 1896	21	4	23*

* Best record trips.

CLIPPER PASSAGES TO AND FROM THE COAST.

- 1859—Ship Black Hawk, 9 days and 9 hours from San Francisco.
 1861—Ship Fair Wind, 8 days and 17½ hours from San Francisco.
 1861—Ship Norwester, 9 days and 16 hours from San Francisco.
 1861—Bark Comet, 9 days and 20 hours from San Francisco.
 1862—Ship Storm King, 9 days and 10 hours from San Francisco.
 1879—Bktne. Catharine Sudden, 9 days and 17 hours to Cape Flattery.
 1879—Schooner Claus Spreckels, 9½ days from San Francisco to Kahului.
 1880—Schooner Jessie Nickerson, 10 days from Honolulu to Humboldt.
 1881—Brgtne. W. G. Irwin, 8 days and 17 hours from S. F. to Kahului.
 1884—Schooner Emma Claudina, 9 days and 20 hours from Hilo to S. F.
 1884—Schooner Rosario, 10 days from Kahului to San Francisco.
 1884—Brgtne. Consuelo, 10 days from Honolulu to San Francisco.
 1886—Bark Hesper, 9½ days from Honolulu to Cape Flattery.
 1888—Brgtne. Consuelo, 9 days 20 hours from San Francisco to Honolulu.
 1893—Bktne. Irmgard, 9 days 16 hours from San Francisco.
 1893—Bktne. S. G. Wilder, 9 days 14 hours from San Francisco.
 1898—Bark Rhoderic Dhu, 9½ days from Hilo to San Francisco.
 1902—Ship Erskine M. Phelps, 97 days from Norfolk, Va.
 1902—Ship John Currier, 35 days from Newcastle, N. S. W.
 1902—Bktne. Lahaina, 12½ days from Eleele, Kauai, to Portland, Ore.
 1903—Bark Annie Johnson, 8 days 16 hours from San Francisco.

List of Sugar Plantations, Mills and Cane Growers Throughout the Islands.

Those marked with an asterisk (*) are planters only; those marked with an exclamation point (!) are mills only; all others are plantations complete, owning their own mills. (Corrected to Oct. 1, 1903.)

NAME.	LOCATION.	MANAGER	AGENTS.
Apokaa Sugar Co.*	Ewa, Oahu.	G. F. Renton	Castle & Cooke
Ewa Plantation.	Ewa, Oahu.	G. F. Renton	Castle & Cooke
Gay & Robinson.*	Makaweli, Kauai.	Gay & Robinson	Waterh'se Tr. Co.
Grove Farm.*	Nawiliwili, Kauai.	A. H. Smith	Hackfeld & Co.
Haiku Sugar Co.	Haiku, Maui.	H. A. Baldwin	Alex & Baldwin
Hakalau Plantation Co.	Hilo, Hawaii.	Geo. Ross	Irwin & Co.
Halawa Sugar Co.	Kohala, Hawaii.	T. S. Kay	Waterh'se Tr. Co.
Hamakua Mill Co.	Hamakua, Hawaii	A. Lidgate	Davies & Co.
Hana Plantation Co.	Hana, Maui.	E. K. Bull	Grinbaum & Co.
Hawi Mill & Plantation	Kohala, Hawaii.	J. Hind	Davies & Co.
Haw. Agricultural Co.	Kau, Hawaii.	Jno. Sherman	Brewer & Co.
Haw. Com. & Sugar Co.	Puunene, Maui.	H. P. Baldwin	Alex & Baldwin
Hawaiian Sugar Co.	Makaweli, Kauai.	B. D. Baldwin	Alex & Baldwin
Hawaii Mill Co.	Hilo, Hawaii.	W. von Grumy	Hackfeld & Co.
Hilo Sugar Co.	Hilo, Hawaii.	John A. Scott	Irwin & Co.
Honolulu Plant'n Co.	Halawa, Oahu.	Jas. A. Low	Irwin & Co.
Honokaa Sugar Co.	Hamakua, Hawaii	K. S. Gjerdrum	Schaefer & Co.
Honomu Sugar Co.	Hilo, Hawaii.	Wm. Pullar	Brewer & Co.
Hutchinson S. Plant. Co.	Kau, Hawaii.	G. C. Hewitt	Irwin & Co.
Kahuku Plantation.	Kahuku, Oahu.	Andrew Adams	Alex & Baldwin
Kekaha Sugar Co.	Kekaha, Kauai.	H. P. Faye	Hackfeld & Co.
Kilauea Sug. Plant. Co.	Kilauea, Kauai.	Andrew Moore	Irwin & Co.
Kipahulu Sugar Co.	Kipahulu, Maui.	A. Gross	Hackfeld & Co.
Kihe Plantation.*	Kihe, Maui.	Jas. Scott	Alex & Baldwin
Kohala Plantation.	Kohala, Hawaii.	E. E. Olding	Castle & Cooke
Koloa Sugar Co.	Koloa, Kauai.	P. McLane	Hackfeld & Co.
Kona Sugar Co.	Kona, Hawaii.	E. E. Conant	.....
Kukaiau Mill Co. (!)	Hamakua, Hawaii	E. Madden	Davies & Co.
Kukaiau Plant. Co.*	Hamakua, Hawaii	J. M. Horner	Hackfeld & Co.
Laie Plantation.	Laie, Oahu.	S. E. Wooley	Waterh'se Tr. Co.
Laupahoehoe Sug. Co.	Laupahoehoe, Ha	C. McLennan	Davies & Co.
Lihue & Hanam'lu Mi	Lihue, Kauai.	F. Weber	.....
Makee Sugar Co.	Kealia, Kauai.	G. H. Fairchild	Hackfeld & Co.
Maui Sugar Co.	Huelo, Maui.	J. R. Myers	Schaefer & Co.
McBryde Sugar Co.	Wahiawa, Kauai.	W. Stodart	Davies & Co.
Niuli Mill & Plantation	Kohala, Hawaii.	Robert Hall	Davies & Co.
Oahu Sugar Co.	Waipahu, Oahu.	A. Ahrens	Hackfeld & Co.
Olaa Sugar Co.	Olaa, Hawaii.	F. B. McStocker	Dillingham Co.
Olowalu Co.	Olowalu, Maui.	Geo. Gibb	Irwin & Co.
Onomea Sugar Co.	Hilo, Hawaii.	John T. Moir	Brewer & Co.
Ookala Sugar Co.	Ookala, Hawaii.	W. G. Walker	Brewer & Co.
Paauhau Sug. Plant. Co.	Hamakua, Hawaii	Jas. Gibb	Irwin & Co.
Pacific Sugar Mill. (!)	Hamakua, Hawaii	D. Forbes	Schaefer & Co.
Paia Plantation.	Paia, Maui.	D. C. Lindsay	Alex & Baldwin.
Pepeekeo Sugar Co.	Hilo, Hawaii.	H. Deacon	Davies & Co.

LIST OF SUGAR MILLS—*Continued.*

NAME	LOCATION	MANAGER	AGENTS
Pioneer Mill Co., Ltd.	Lahaina, Maui.	L. Barkhausen	Hackfeld & Co.
Puakea Plantation Co	Kohala, Hawaii.	H. R. Bryant	Davies & Co.
Puako Plantation.	S. Kohala, Hawai	W. Vredenberg	Hind, Rolf & Co.
Puna Sugar Co.	Puna, Hawaii.	W. H. Campbell	Dillingham Co.
Union Mill Co.	Kohala, Hawaii.	J. Renton	Davies & Co.
Waiakea Mill Co.	Hilo, Hawaii.	C. C. Kennedy	Davies & Co.
Waialua Agricult'l Co.	Waialua, Oahu.	W. W. Goodale	Castle & Cooke
Waianae Plantation.	Waianae, Oahu.	Fred Meyer	J. M. Dowsett.
Wailuku Sugar Co.	Wailuku, Maui.	C. B. Wells	Brewer & Co.
Waimanalo Sugar Co.	Waimanalo, Oahu	Geo. Chalmers	Irwin & Co.
Waimea Sugar Mill Co.	Waimea, Kauai.	Jno. Fassoth	Castle & Cooke

Seating Capacity of Principal Churches, Halls and Places of Amusement—Honolulu.

Kawaiahao Church (native), King street.....	1,000
Roman Catholic Cathedral, Fort street.....	1,500
Central Union Church, Beretania street.....	850
St. Andrew's Cathedral (Episcopal), Emma street.....	800
Y. M. C. Association Hall, Hotel street.....	250
Progress Hall, corner Fort and Beretania streets.....	500
Hawaiian Opera House, King street.....	1,000
The Orpheum, Fort street.....	945

Redemption of Hawaiian Coin.

In the redemption of Hawaiian silver coin by the United States Government, up to September 30, 1903, there have been taken up and shipped away the sum of \$785,000 in the following denominations:

DENOMINATIONS.	AMT. ISSUED.	REDEEMED.
Dollars.....	\$500 000	\$436,000
Half-dollars.....	350,000	294,000
Quarters.....	125,000	55,000
Dimes.....	25,000	None
Total.....	\$1,000,000	\$785,000

Tables of Comparative View of Commerce, from 1845, as also Principal Articles of Exports, from 1860, will be found in the Annuals, 1879-1886. Subsequent issues present their continuity at the sacrifice of earliest years owing to page limitations. The Annual for 1902 gave these two important tables from 1871 to the close of Hawaiian independence.

List of Principal Stock and Sheep Ranches Throughout the Islands.

RANCH NAME.	CHARACTER.	MANAGER.	LOCATION.	AGENT.
Erehwon Station.	Cattle.	D. von Tempsky.	Makawao, Maui.	J. M. Dowsett.
Gay & Robinson.	Sheep.	Gay & Robinson.	Nihau.	Waterhouse Tr. Co.
Greenwell's.	Cattle and Sheep.	W. H. Greenwell.	S. Kona, Hawaii.	Alexander & Baldwin
Haiku Ranch.	Stock.	W. E. Beckwith.	Haiku, Maui.	Brewer & Co.
Haleakala.	Stock.	L. von Tempsky.	Makawao, Maui.	H. von Holt.
Honouliuli.	Stock.	L. Warren.	Ewa, Oahu.	Alexander & Baldwin
Honolua.	Stock.	R. C. Searle.	Honolua, Maui.	Davies & Co.
Huehue.	Stock.	John Maguire.	N. Kona, Hawaii.	Metropolitan Meat Co.
Humuula.	Sheep.	S. Parker, Jr.	Kohala, Hawaii.	
Kahakulooa.	Stock.	J. Richardson.	Lahaina, Maui.	Waterhouse Tr. Co.
Kahikinui.	Stock.	J. H. Ralmond.	Nuu, Maui.	J. F. Morgan.
Kahuku.	Stock.	Samuel Norris.	Kau, Hawaii.	H. von Holt.
Kalawao and Waimalu.	Stock.	Wm. Campbell.	Kahuku, Oahu.	C. Brown.
Kaneohe.	Stock.	L. L. McCandless.	Ewa, Oahu.	C. Bolte.
Kapapala.	Stock.	George Campbell.	Koolau, Oahu.	Brewer & Co.
Lanai Ranch.	Sheep.	J. Monsarrat.	Kau, Hawaii.	Irwin & Co.
Leilehua.	Stock.	Chas. Gay.	Lanai.	Dillingham Co.
Makua.	Stock.	W. A. Buick.	Waianae, Oahu.	C. Brown.
Maalaea.	Stock.	L. L. McCandless.	Waianae, Oahu.	Waterhouse Tr. Co.
Mokuleia.	Stock.	P. Cockett.	Waikapu, Maui.	H. Focke.
Molokai Ranch.	Stock and sheep.	C. P. Iaukea.	Waialua, Oahu.	A. W. Carter.
Paris'.	Stock.	G. C. Monroe.	Molokai.	
Parkers'.	Stock.	John D. Paris.	S. Kona, Hawaii.	A. W. Carter.
Puuhue.	Stock.	F. W. Carter.	Waimea, Hawaii.	Davies & Co.
Puuloa.	Sheep.	Palmer Woods.	Kohala, Hawaii.	Macfarlane & Co.
Puuohoku.	Cattle and Sheep.	F. Johnson.	Waimea, Hawaii.	J. F. Brown.
Puuwaawaa.	Stock.	J. F. Brown.	East Molokai.	Hind, Rolf & Co.
Rice's.	Stock.	Robt. Hind.	Kona, Hawaii.	
Rose Ranch.	Stock.	W. H. Rice.	Lihue, Kauai.	Waterhouse Tr. Co.
Umikoa.	Stock.	J. H. Raymond.	Ulupekua, Maui.	
Waiohinu Agricultural Co.	Stock.	R. Horner.	Hamakua, Hawaii.	Irwin & Co.
		S. Kauhane.	Kau, Hawaii.	

DIPLOMATIC OFFICERS IN HAWAII.

(Compiled by W. D. Alexander, LL.D.)

George Brown, of Massachusetts.

Commissioner, appointed March 3, 1843.

Anthony Ten Eyck, of Michigan.

Commissioner, appointed April 19, 1845.

Charles Eames, of New York.

Commissioner, appointed January 12, 1849.

Luther Severance, of Maine.

Commissioner, appointed June 7, 1850.

David L. Gregg, of Illinois.

Commissioner, appointed July 6, 1853.

James W. Borden, of Indiana.

Commissioner, appointed January 11, 1858.

Thomas J. Dryer, of Oregon.

Commissioner, appointed March 26, 1861.

James McBride, of Oregon.

Minister Resident, appointed March 9, 1863.

Edward M. McCook, of Colorado.

Minister Resident, appointed March 21, 1866.

Henry A. Peirce, of Massachusetts.

Minister Resident, appointed May 10, 1869.

James M. Comly, of Ohio.

Minister Resident, appointed July 1, 1877.

Rollin M. Daggett, of Nevada.

Minister Resident, appointed July 1, 1882.

George W. Merrill, of Nevada.

Minister Resident, appointed April 2, 1885.

John L. Stevens, of Maine.

Minister Resident, appointed June 20, 1889.

John L. Stevens, of Maine.

Envoy Extraordinary and Minister Plenipotentiary, appointed July 30, 1890.

James H. Blount, of Georgia.

Envoy Extraordinary and Minister Plenipotentiary, appointed May 9, 1893.

Albert S. Willis, of Kentucky.

Envoy Extraordinary and Minister Plenipotentiary, appointed September 13, 1893.

James H. Blount, of Georgia.

Special Commissioner to the Hawaiian Islands, appointed March 11, 1893.

Ellis Mills, of Virginia.

Secretary of Legation and Consul-General, appointed August 8, 1894.

Harold M. Sewall, of Maine.

Envoy Extraordinary and Minister Plenipotentiary, appointed April 22, 1897.

William Haywood, of District of Columbia.

Secretary of Legation and Consul-General, appointed June 1, 1897.

CONSULAR OFFICERS IN HAWAII.

Honolulu—

John C. Jones, Jr., of Massachusetts.

Agent for Commerce and Seamen at the Sandwich Islands, appointed September 19, 1820.

Peter A. Brinsmade, of Maine.

Agent for Seamen and Commerce, appointed April 13, 1838.

Peter A. Brinsmade, of Maine.

Consul, appointed July 5, 1844.

Elisha H. Allen, of Massachusetts.

Consul, appointed October 18, 1849.

Benjamin F. Angell, of New York.

Consul, appointed May 24, 1853.

Darius A. Ogden, of New York.

Consul, appointed August 2, 1854.

Abner Pratt, of Michigan.

Consul, appointed March 14, 1857.

Alexander W. Bull, of Michigan.

Consul, appointed August 17, 1860.

John A. Parker, of Virginia.

Consul, appointed October 2, 1860.

Alfred Caldwell, of Virginia.

Consul, appointed August 12, 1861.

Morgan L. Smith, of Virginia.

Consul, appointed September 29, 1866.

Zephaniah S. Spalding, of Ohio.

Consul, appointed July 25, 1868.

Thomas Adamson, Jr.

Consul, appointed June 1, 1869.

Calvin S. Mattoon, of Ohio.

Consul, appointed September 24, 1870.

James Scott, of Ohio.

Consul, appointed August 22, 1874.

John M. Morton, of California.

- Consul, appointed April 3, 1879.
David A. McKinley, of California.
Consul, appointed December 21, 1880.
John H. Putnam, of Ohio.
Consul-General, appointed July 1, 1885.
Henry W. Severance, of California.
Consul-General, appointed May 16, 1889.
Ellis Mills, of Virginia.
Consul-General, appointed September 9, 1893.
Ellis Mills, of Virginia.
Secretary of Legation and Consul-General, appointed August 8, 1894.
William Haywood, of District of Columbia.
Secretary of Legation and Consul-General, appointed June 1, 1897.
Thomas F. Wilson, of Pennsylvania.
Vice-Consul, appointed May 30, 1866.
J. S. Christie, Jr., of New Jersey.
Vice-Consul, appointed September 13, 1870.
Jonathan S. Christie, Jr., of New Jersey.
Vice-Consul, appointed April 25, 1871.
William H. Peebles, of Ohio.
Vice-Consul, appointed December 7, 1874.
James Castle.
Vice-Consul, appointed November 6, 1875.
Theodorus B. Hascoll.
Vice-Consul, appointed September 6, 1876.
Frank P. Hastings.
Vice and Deputy Consul, appointed August 3, 1877.
Frank P. Hastings.
Vice and Deputy Consul-General, appointed April 3, 1886.
Arthur W. Richardson, of Colorado.
Vice and Deputy Consul-General, appointed September 13, 1889.
W. Porter Boyd.
Vice and Deputy Consul-General, appointed June 20, 1892.
Alexander G. Abell, of Michigan.
Consul to Hawaii, appointed January 16, 1845.

Hilo—

- Thomas Miller.
Consul, appointed August 31, 1852.
Thomas Spencer, of Hilo.
Consul, appointed March 6, 1862.
Thomas Spencer.
Consular Agent, appointed May 6, 1872.
John Allison Beckwith, a citizen of the United States.

Consular Agent, appointed September 24, 1884.
Charles Furneaux, a citizen of the United States.
Consular Agent, appointed August 18, 1888.

Lahaina—

Charles Bunker, of Massachusetts.
Consul, appointed April 2, 1850.
George M. Chase, of Maine.
Consul, appointed May 24, 1853.
Anson G. Chandler, of Maine.
Consul, appointed July 7, 1856.
John A. Parker, of Virginia.
Consul, appointed August 17, 1860.
Charles Richmond, of Michigan.
Consul, appointed October 2, 1860.
Samuel Long, of Illinois.
Consul, appointed March 21, 1861.
Elias Perkins, of Connecticut.
Consul, appointed March 13, 1863.
Horace H. Houghton, of Illinois.
Consul, appointed April 9, 1869.

Sandwich Islands—

Joel Turrill, of New York.
Consul, appointed August 1, 1845.

Kahului—

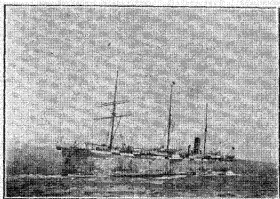
August Frederic Hopke, of the United States.
Consular Agent, appointed August 20, 1880.
Arnot Gray Dickins, of District of Columbia.
Consular Agent, appointed January 29, 1898.

Mahukona—

Charles L. Wight, a citizen of the United States.
Consular Agent, appointed September 15, 1882.
Charles Jacob Falk, of Illinois.
Consular Agent, appointed January 30, 1895.
Abbot Fraser, of Iowa.
Consular Agent, appointed January 26, 1898.
Consular Bureau, June 8, 1903.

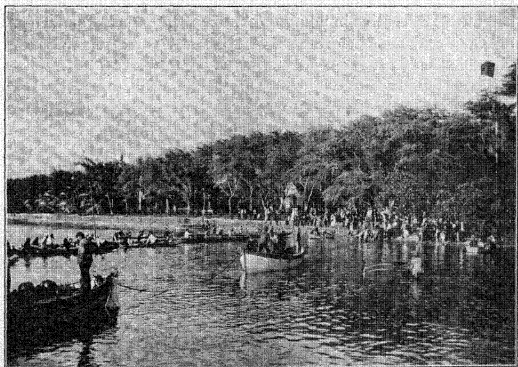
COMPLETION OF THE PACIFIC CABLE.

BRIEF mention was made in the last "Annual" of the fact that the Pacific Cable, connecting us with San Francisco, had been landed on these shores by the cable ship Silvertown, and bringing Hawaii at last in telegraphic communication with the world.



CABLE SHIP SILVERTOWN.

The event, which occurred Sunday, December 28th, 1902, and which had been delayed several days owing to boisterous weather, was attended with so watchful an interest by a large con-



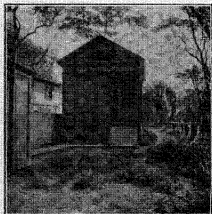
LANDING THE CABLE AT WAIKIKI.

course of people at Waikiki that they were dispersed only by rain and approaching darkness.

As a fitting celebration of its landing and the passing of congratulatory messages to and fro, a monster mass meeting was held at the Executive grounds on the afternoon of January 2nd, 1903, for which purpose all business of the city was suspended.

The occasion was made one of historic interest long to be remembered. Greetings from President Roosevelt, Clarence H. Mackay, governors, mayors and other prominent personages and commercial bodies were read to the throng, and the happy utterances by the various speakers upon the success of this first section of the Pacific Cable were received with enthusiasm, and the prophetic visions portrayed of its binding power, politically and commercially, that will increase with magic strides as it passes on and links us with the Philippines and the Orient, met with responsive hopes for its fulfillment, and that the promoters of the Commercial Pacific Cable Company may find liberal reward for their enterprise and expenditure.

This was followed in the evening by a grand display of fireworks, which, in turn, was succeeded by a brilliant reception and ball at the Executive building in honor of the officials of the Cable Company and the cable ship *Silvertown*, the attendance upon which was too great for comfort.



CABLE HUT, WAIKIKI.

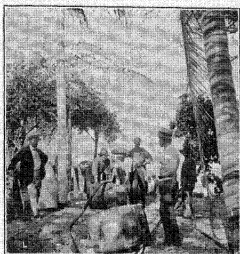
Our little world moves on; and six months later there was landed at the cable hut, Waikiki, and completed, the section from the Philippines via Guam and Midway Islands. July 4th witnessed the last connecting link and the flashing forth, first, of the congratulatory messages of President Roosevelt around the world to Clarence H. Mackay, but seventy miles distant from him in New York, and to Governor Taft in the most dis-

tant portion of the United States' possessions, followed by others between various dignitaries and commercial bodies, in which jubilation Hawaii also participated to a certain degree, but void of any demonstration of enthusiasm like that attending the first event.

The uniform success that has attended the laying of these sections of the Pacific cable is of itself a subject worthy of congratulation, and is an evidence of the care and efficiency of the officers in charge of the important work. The same vessels, "Colonia" and "Anglia," that were engaged in the laying of the British Pacific Cable last year did like service for the completion of the Mackay Pacific Cable this year, the latter cable ship being the one that laid the section from Midway to this connecting point, a distance of 1,221 knots—said to be the longest ever laid without a stop or slowing down of the vessel, so favorable were all the conditions in the work.

Compared with initial enterprises of like magnitude, hitherto undertaken only upon government aid or annual subsidy, it seems hard to realize the spirit of commercial enterprise that volunteers the construction and maintenance of a cable from San Francisco to the Philippines without any such financial support, as in this case. All honor, therefore, to the memory of John W. Mackay, who planned the enterprise, and to his son and colleagues of the Cable Company who carried them all out to completion. Governor Dole's greeting to the Mackay Cable Company recognizes these facts in the following fitting message:

"I desire to use the opportunity afforded by the completion of the cable of your company to express my enthusiastic admiration of the patriotic enterprise of the late Mr. Mackay, which led him, without government assistance, to plan the great scheme of laying a cable across the Pacific ocean to connect



LANDING THE MANILLA CABLE.

the outlying new possessions of the United States with the mainland. Permit me also to express my appreciation of the work of his representatives in promptly and successfully carrying out his plans to the great public benefit of the Territory of Hawaii."

We of Hawaii are in a position to appreciate the patriotic and public-spiritedness of the scheme from the transforming power it affords us in the knowledge of being in telegraphic communication with all mankind. Hawaii is now no longer out of the world because she is "beyond Cape Horn."

While we may not as yet witness fleets of shipping calling off the port for orders, nor the influx of business men for a season of relaxation, since they can be in daily touch with their affairs, according to the prophecies—and to many there may appear to be little or no change in the business life of Honolulu—there is nevertheless a subtle influence in progress—a satisfying transforming power at work simply in the knowledge of our isolation being a thing of the past. The principal events transpiring in the world are served up to us daily by our morning and evening papers. This in turn has had the effect of materially lessening the old-time interest and excitement that naturally centered in the arrival of foreign mails.

If, as has been said, "the Pacific will become the theater of the world's commercial activity," with Hawaii as its "cross-roads," the establishment of the cable will prove to be a factor of no small importance toward our participation therein.

With the opening up of the through line for business which occurred July 25th, the rate between here and San Francisco was reduced from 50 to 35 cents per word, and to the other points was announced as follows: To Midway, 35 cents; to Guam, 60 cents; to Manila, 85 cents; to Hongkong, \$1.01, and to Yokohama, \$1.32.

The vanilla bean was introduced into those islands by Captain Pichon and Dr. Dumas of H. I. M.'s corvette *Eurydice*. This fact, with "Notes of the vanilla," may be found in the *Polynesian* of Oct. 31, 1857, and is followed in the next issue by a paper from Dr. Hillebrand.

THE INTERNAL COMMERCE OF HAWAII.

INTRODUCTORY.

THE Territory of Hawaii, well known for the salubrity of its climate, the phenomenal productiveness of its cultivated area, as also its remarkable commercial progress is, after all, known in so vague and general a way that leaves much to be learned relative to their resources and internal development before the islands and their needs are properly understood.

Of the group of islands comprising the Territory of Hawaii, but eight of them are inhabited and susceptible of development in various degrees according to their situation and natural resources. These are: Hawaii, Maui, Lanai, Molokai, Oahu, Kauai, Niihau and Kahoolawe. Others are but small rocky islets.

The area of the above islands is under 6,500 square miles, or some 4,127,000 acres. They are pleasantly situated in the belt of the Northeast trade winds between the meridians of $154^{\circ} 45'$ and $160^{\circ} 30'$ longitude west of Greenwich, and between parallels $18^{\circ} 50'$ and $22^{\circ} 15'$ north latitude, some 2,000 miles distant from San Francisco. This in a large measure constitute their charm, details of which need not be entered here.

The islands of the group are of volcanic origin with only here and there a coral bordering reef to afford harbor shelter. Most of the islands are rugged, with great gulches cutting up the sides of the mountains, and bold cliffs in many instances bordering the coast, especially on the windward side. While the windward shores present an appearance of tropic luxuriance, the leeward coasts contain stretches of arid lands relieved here and there by deep and fertile valleys where streams course to the sea.

The sheltered harbors of the islands are few, and unfortunately the most productive, windward coasts, labor under many disadvantages through their lack, and the difficulty of their open roadstead landings.

The principal products of the islands are well divided between agricultural and pastoral pursuits. Several large cattle ranches and sheep stations have been established a number of years, supplying the local butchering demand, and furnishing hides, wool, skins and tallow for export.

Sugar is naturally the principal industry and is prosecuted vigorously throughout the islands; lands unsuited to the plow are devoted in certain districts to coffee, and attention of late is being drawn to the growth of sisal and other fibrous plants, while the wet lands are devoted to rice culture.

The forests of Hawaii, Maui and other islands, furnish an unrivalled furniture wood, the koa (*Acacia koa*), though not to the extent of former years. Bananas and pineapples are cultivated for shipment abroad, while oranges, limes, avocado pears, and other tropic and semi-tropic fruit is cultivated for the local market.

DESCRIPTIVE.

The island of Hawaii, which gives the name to the group, while largest in area, develops her natural resources under serious disadvantages through the lack of harbors; insecurity at many landings through the rough character of her coast; no rivers, and the entire absence of streams in all districts save the coast from Kohala point to Hilo. The deep gulches and ravines which cut up the windward coast render many of the streams unavailable for the development of her up-land tillable areas save at enormous expenditure of money. Another derogatory factor is the vast area covered by various eruptions of lava in past ages. This condition of country, furthermore, makes exceedingly difficult and expensive the necessary roadwork and bridge building connecting the districts and essential to their development.

Hilo is the only harbor around the whole island, and is also the only port outside of Honolulu with any wharf accommodation for even the coasting vessels of the islands. The harbor is small, however, and exposed to northerly winds and swell. Kealakekua bay, as also Kailua, both on the Kona coast, afford good anchorages, but no protection in heavy weather. Kawaihae and Mahukona in the Kohala district are even more

exposed roadsteads. These complete the list of shipping points around Hawaii save the various plantation and other landings more or less exposed that are touched at by the local coasters, sail and steam, weather permitting.

Maui is second in area, and like Hawaii suffers for the want of harbors. Kahului, of limited capacity and facilities with which to serve the interests of her principal agricultural district, is the only port of entry, and with the little harbor of Hana, are the only shelter points for even our coasting craft; Lahaina and other places regularly visited by the steamers in the inter-island service being but open roadsteads.

Oahu comes next in area but principal in importance of the Territory through Honolulu being the seat of government, and the center of commercial activity by its possession of an absolutely safe harbor in all weather, with port facilities to meet the requirements of the commerce of the islands. The completion of deepening Pearl harbor bar, for the use and establishment of the U. S. Naval station, will open up the finest harbor in the Pacific. Besides these two harbors is the extensive bay of Kaneohe, on the windward side of the island, too shallow to admit anything but the small vessels of our coasting fleet. The other sections of the island are well served by the daily service of the Oahu Railway which traverses the coast to as far around as Kahuku, and has been instrumental in establishing and building up several sugar plantations along its route that has brought Oahu forward to an enviable place in the annals of cane growing.

Oahu being better watered, naturally, than the windward islands and meeting also with better success in sinking artesian wells than has been experienced elsewhere in the group, is the center of the rice-growing industry. This condition, and the advantage of shipment, has also built up and maintained the banana export trade and has successfully inaugurated the pineapple and sisal industries.

Kauai to the northwest differs little in area from Oahu. It is favored with many streams and enjoys the distinction of possessing the only river in all the islands. Kauai's well-known fertility long since gained for it the title of "garden

island," but unfortunately none of its landings afford shelter to shipping in all weathers, nor does it possess wharf facilities for its regular weekly steamers to discharge or receive cargo. Cane growing is the principal industry, with considerable attention to rice and coffee culture, and stock raising.

Molokai is devoted to agriculture and grazing, as is also Lanai, while Niihau and Kahoolawe are devoted mainly to sheep raising, the latter island being devoid of any water supply, and none of them possessing other than open roadstead landings.

COMMERCIAL RESOURCES.

While the commercial resources of the Territory are limited, the attention and energy of her people are being devoted to those lines which climate and soil have shown to be most responsive to effort. As a result Hawaii now stands credited with being entitled to third rank among the sugar producing countries of the world; with first place in the yield of sugar per acre, as also in efficiency of machinery and advanced method of cultivation. The area planted in cane exceeds somewhat 60,000 acres, and the annual product in sugar the past few years is as follows:

Islands.	1900.	1901.	1902.
Hawaii..... tons	115,224	134,618	121,295
Maui.. .. "	57,347	58,349	56,726
Oahu.. .. "	53,625	99,534	107,870
Kauai.... .. "	63,348	67,537	69,720
Total.. ..	289,544	360,038	355,611

Coffee growing ranks next in importance, and our choice "Kona" product is famed wherever it becomes known for its excellent quality and flavor. Land suitable to its culture on the different islands was taken up and planting extended with not a little enthusiasm a few years ago, and easily took second place in the interest of the community, and though interest therein has somewhat waned through the low rate that has long ruled the markets, it has nevertheless reached a very flattering position. The last compilation showed the year's product to be 2,297,000 pounds, of which Hawaii produced 2,112,-

650 pounds; Maui 69,800; Oahu 68,100; Kauai 42,750, and Molokai 3,700.

In point of cultivated area rice would be entitled to rank second to sugar, it having 9,130 acres under cultivation, but of less value than the 6,450 acres credited to coffee. Furthermore, rice being the main food of so large a part of the population, Chinese and Japanese, it figures but lightly among our domestic exports. The steady decline for some time past in our annual tables is to be understood as an increased home consumption instead of a retrograde industry.

Wool.—Sheep farming is prosecuted upon the islands of Hawaii, Molokai, Kahoolawe, Lanai and Niihau, the first named producing nearly one-half of the annual wool clip of the territory. Wool growing is the principal industry of Niihau and Kahoolawe, and largely that of Lanai.

The total number of sheep at the last enumeration in 1900 was 102,098, and the wool clip for the preceding year was 424,228 pounds, valued at \$53,686. The annual clip varies materially of late years, the maximum being in 1888 when 562,289 pounds were shipped abroad. Sheepskins form a part of our exports, the highest being 15,282 in 1899.

Cattle raising finds its principal ranches on the island of Hawaii, and is confined, largely, to the natural pasturage, or grazing lands, of mountainous ranges above the agricultural belt. Most of the other islands are also well represented in the industry which is prosecuted for the supply of the home market. Through the extended area of land brought under cane culture, reducing the grazing area, and the increase of our population the supply of beef for home consumption has fallen short of the demand, necessitating cold-storage importations.

The export of hides, tallow, horns, etc., while varying in value year by year, yet makes a respectable showing in the tables of domestic products shipped abroad. Goat skins also form a portion of our domestic exports, but fluctuating and diminishing, to the benefit of our upper forest ranges where much damage was being done by the herds.

Tropic fruit culture for many years past has been prominent among the resources of the islands, the principal item of export

being bananas, with pineapples of recent years making wide strides, both in its natural fresh state and also as a canned product. Home demand consumes the yearly product of Kona's choice oranges. The increase in the supply of limes apparently supplies but the larger local demand prevailing. Coconuts do not as yet make any showing to the credit of our resources as they might do, more especially if the possibility was looked into for putting up the dessicated product for export.

Fibers.—Much encouragement has been experienced at the sisal growing enterprise having passed the experimental stage and successfully demonstrated its possibilities in many parts of the islands to become one of the leading industries of the territory, particulars of which are given elsewhere in this issue.

Forest products.—Aside from the quantity of forest trees felled annually to meet the demand for firewood which comprise, principally, the ohia, pua, kopiko and a few others of like character, there is a moderate business done in the production of koa lumber, than which few finer cabinet woods exist in any part of the world. Its fine qualities have called for its exportation, mainly in the roughly squared log, for the finer machine sawing and dressing abroad for, principally, house finishing, though unsurpassed in furniture also.

INTERNAL COMMERCE.

In the prosecution of the coasting business of the islands the sailing vessels of former days—fore and aft schooners almost wholly—have gradually been supplanted by a fine fleet of steamers of from 72 to 975 tons, and of from 100 to 820 horse power, nearly all of which are owned and managed by two corporations, each of which have gradually improved their service as business required.

The proximity of our islands to each other, forming a compact group, affords the advantage of frequency and regularity in the movement of the inter-island coasting vessels which number forty-five of all classes, of 10,361 gross or 7,134 net tons. The following table shows the class and number of vessels in this service now registered here:

SUMMARY OF INTER-ISLAND COASTERS.

VESSELS	No.	TONNAGE	
		Gross	Net
Ocean Passenger Steamers.....	17	8,531	5,793
Ocean Freight Steamers.....	3	419	300
Ocean Towing Steamers.....	4	225	107
Inland Towing Steamers.....	3	36	22
Freight Sailing Vessels.....	14	891	714
Gasoline Screw Steamers.....	4	259	198
Total	45	10,361	7,134

Of the number of vessels given above at least four of the steamers, and as many sail vessels, have been out of service during the entire year, while a number of others have been idle or undergoing repairs, so as to be laid up from two weeks to nine months each. Several of the smaller sail craft, of from 6 to 27 tons, are confined to the Pearl Harbor and Koolau trade with Honolulu, and the inland towing and gasoline steamers serve harbor conveniences of this port, Hilo and Kahului. The freight and passenger business between the islands this past year has therefore been accomplished with a reduction of some twelve of the foregoing list of vessels, of over 700 gross tons.

With the exception of five of the sail vessels confined to the trade between Hamakua and this port, and one or two to Hilo and Puna for firewood, the coasting business is centered into the steam service and has become well organized.

The vessels of the Wilder's S. S. Co. are confined to regular service between Molokai, Lanai, Maui and windward Hawaii and this port, with certain one's in the busy season assigned as freighter between Hamakua and intermediate landings and Hilo. This windward coast of Hawaii is the roughest in all the islands, requiring the skill of the best seamanship in the handling of vessels and both skill and swimming power in the boatmen in the landing and receiving of freight.

A typical landing of this character is that of the Paauhau plantation, on the Hamakua coast. C. L. Wight, president of the Wilder's S. S. Co., reports thereon as follows:

"Though built of solid masonry this landing is more or less damaged every season and has been completely washed away a number of times. It frequently occurs that it is impossible to do any work at such landings for a space of two or three weeks. The cranes on this landing are operated by a steam engine located one hundred feet above sea level, and this engine has also been washed away.

"The cliffs rise sheer from the sea, and the water at their base in places is twenty to thirty feet deep. While discharging freight vessels anchor in from ten to fifteen fathoms of water. Nearly all of the anchorages are very bad and it is not unusual for a steamer to lose two anchors on one voyage.

"The major portion of the freight business is carried on at landings which receive the full sweep of the sea, there being only one wharf outside of Honolulu, that at Hilo, where vessels can go alongside. For this reason it is necessary to handle the freight in small boats; the steamer meanwhile lying at from one-eighth to a quarter of a mile away. Work at these landings is always hazardous and boats are frequently lost. Owing to the skill of Hawaiian sailors as surf-swimmers, few fatalities occur; minor accidents however are common.

"The passenger business is mainly handled at separate landings which afford safe means of transportation. In a service of twenty years but one fatality occurred, and in this instance the passenger insisted upon embarking from a freight landing against the advice of the officers."

The fleet of the Inter-Island S. N. Co. have the entire business of the islands of Kauai and Niihau, the leeward portion of Hawaii, touching (as do the Wilder's steamers), en route, at Lahaina and way ports of Maui, with one or more assigned to the Hamakua coast of Hawaii. This company likewise report that at all ports outside of Honolulu freight and passengers are landed in surf boats, it being impossible for the steamers to lie alongside any wharf. There is always a certain amount of risk in landing passengers and freight in this manner, especially at certain landings during bad weather.

None of the sailing vessels report the carrying of passengers,

that service being now confined to their steam rivals. By the various steamers no less than 60,140 passengers were carried last year, inward and outward.

In the amount of freight handled the two steamship corporations report a total of 236,222 tons of miscellaneous merchandise carried during the year, and six of the coasting schooners report 7,700 tons additional. The total amount of sugar handled by them the past year is given as 171,312 tons.

There is no data whereby the value of all the merchandise handled annually may be shown, but it can readily be seen to be a large sum since the amount of sugar alone represents a value of \$10,873,241, based upon last year's export valuations.

The number of hands engaged in the coasting service amount to 810 on the various vessels, and 150 on shore duty.

Freight rates range from \$1.80 to \$5.00 per ton, being governed by distance and difficulties connected with the landing. In some localities the latter figure is not remunerative, and in such cases the Territorial government pays a subsidy to insure a regular freight and passenger service. By sail general merchandise and sugar freight is quoted at from \$2.00 to \$2.75 according to distance, while by steam it ranges from \$3.50 to \$5.00 to Hawaii, and from \$2.50 to \$3.50 to Maui, or Kauai.

The bulk of the inter-island business centers largely upon Sunday arrivals, and Monday and Tuesday for departures, bringing oft times a congestion of traffic at the wharves on those days.

COMMERCE OF HAWAII WITH THE UNITED STATES.

The carefully prepared tables of the Customs' Service furnish evidence of the growth of commerce between these islands and the mainland and the importance of our trade with the Pacific Coast. Though former detail tables are absent, the fact is apparent that the larger part of all our commerce, inward and outward, passes through San Francisco.

The Honolulu arrivals of vessels for the year ending June, 1902, was 537, of which there were from San Francisco 104 sail vessels and 111 steamships, leaving 322 as from all other ports of the Pacific and elsewhere. The departures for San Francisco for the same period were 92 steamers and 105 sail vessels. Of

these 12 were naval and 31 were foreign bottoms, and consequently unavailable for freight or passenger service; a restriction which seriously discommodes the mercantile interests of the islands.

Of the total receipts of merchandise for the year ending with June, 1903, from the United States, showing a value of \$11,910,595, the custom district of San Francisco is credited with \$10,896,009. The exports of the Territory, with the exception of a few direct eastern sugar cargoes by way of Cape Horn, is practically all shipped through the Golden Gate, much of which is transhipped East by rail.

The annual consumption of sugar of the Pacific Coast is estimated at some 300,000 tons, of which the beet industry supplies nearly one half. With San Francisco's imports from other countries it has been incumbent on the planters of these islands for some few years past to find an eastern market for their surplus of each crop. The following table shows the quantity and value of sugar shipments to the respective markets since 1895.

TABLE OF SUGAR SHIPPED TO PACIFIC AND EASTERN PORTS.

YEAR	PACIFIC PORTS		EASTERN PORTS	
	Tons	Value	Tons	Value
1895	122,326	\$ 6,684,956 41	25,061	\$ 1,290,208 00
1896	166,182	11,211,882 17	55,601	3,720,127 91
1897	173,911	10,258,135 71	86,354	5,132,087 38
1898	183,613	13,801,005 31	38,867	2,813,425 22
1899	228,931	18,518,447 31	43,758	3,379,733 16
1900	262,570	21,438,333 17	29,551	2,364,800 00
1901	303,496	22,913,128 00	43,772	3,302,635 00
1902	256,050	16,252,538 00	83,836	5,121,936 00
Total	1,697,079	\$121,078,426 08	406,802	\$27,124,952 67

Since the advent of the large vessels of the American-Hawaiian S. S. Co. the regular fleet of sailing packets between San Francisco and this port have been materially reduced, so that outside vessels are required to move our sugar in the height of the season.

During the sugar season, which is at its height the first half of the year, and also in the passenger traffic, much serious injury is experienced throughout the islands by the application of the

coastwise laws to this territory though distant over 2,000 miles from the mainland, restricting all business—save conveyance of mails—to American vessels. The hardship is felt through our isolated position, and in the aim to ship our product to market without having to break cargo and tranship by rail overland, (which adds materially to the expense of marketing,) the available tonnage is not to be had.

The vested interests of these islands as also the commercial interests of San Francisco would be best subserved by the removal of the coastwise law restrictions in its application to this territory. Effort is being made to secure tourist travel to these islands, but practically 50 per cent. of the steamers touching at this port cannot carry passengers to or from the mainland.

COMMERCE OF HAWAII WITH FOREIGN COUNTRIES.

Hawaii's trade with foreign countries keeps up well in import values, notwithstanding our preference for a nearer market for the disposal of, comparatively, all our products. The total amount of foreign importations for the year ending June, 1903, was \$3,142,013, against \$3,036,583 for the previous year. In nationality of supply, Japan leads with \$970,591; the British Colonies next with coal, etc., to the value of \$726,347; Great Britain following with \$507,350; Germany \$387,470; Chile, in the supply of nitrate, etc., \$307,300; Hongkong \$158,805; France \$4,795, and all other countries, \$79,175. The total value of our exports to all these countries, save Chile and France, was \$32,596, while our shipments to the United States was \$26,201,175.

The shipping movements of the territory for the past year shows the following number of vessels, as to nationality, viz: American 426, British 76, Japanese 29, German 6, Norwegian 5, French 4, Swedish 2, and Russian, Danish and Italian one each; a total of 551 arrivals, of 980,847 tons.

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September 26, 1903, the Nevadan, for San Francisco, took 250 tons of canned pineapples, the largest shipment yet made of that product from these islands.

DIVERSIFIED INDUSTRIES AGAIN.

NOT a little agitation has been made by the press of the Territory during the past year in the interests of small farming, and it is pleasing to learn of continued effort being put forth in various parts of the islands toward diversified industries quite in keeping with the spirit of articles on that subject in the "Annuals" for 1893 and 1894.

In this connection it is gratifying to find the hold sisal culture, which was then shown for the first time as one of our possibilities, promises to have among our agriculturalists and capitalists from the very satisfactory exhibit made of the pioneer Hawaiian Fiber Company's effort in this direction and the high standard of their finished product. That it has passed the experimental stage to be entitled to recognition as a factor in our products is evidenced not only by the careful financial showing of the practical working and output of the Sisal Company's affairs by our foremost promoter during the past summer, but that already the establishment of like concerns in different parts of the islands are taking definite shape, so that the demand for young plants with which to start the same already exceeds the visible supply.

Besides extending the planting limits of the Hawaiian Fiber Company at Ewa, the following locations are named for the setting out of plants and establishing the sisal industry, viz: Koolau, Oahu; Lanai; Molokai; Haiku, Maui, and South Kona, Hawaii.

Another fiber plant to which attention has been recently called is the Manila hemp (*Musa texilis*), a species of banana which was introduced here in 1866, and is reported to be distributed throughout the entire group. The late Goodale Armstrong did something toward its culture in Iao valley, Maui, about 1875, and sent samples of the crude fiber product to this city, but we believe nothing further was done therewith. The plant multiplies freely by suckers and attains a height of 18 to 20 feet.

CASTOR OIL CULTURE.

Another concern that has been quietly proving the possibilities in a different direction is the castor oil plantation and mill of the C. Koelling Co., Ltd., Kaneohe, Oahu. In response to inquiries of the promoter and manager as to its progress and outlook, we have the following promising report: "Regarding our castor oil business we hope to make it a decided success. It has taken time to properly understand the cultivation of the plant, years having been lost in experimenting, but we now have a variety that gives very satisfactory results, and with the market for the oil practically unlimited, there seems to be nothing in the way to hinder its prosperity. We have the best and latest approved machinery for manufacturing the oil, which is carried on by two distinctly different operations. The quality of oil equals the best manufactured in the United States or Europe.

"The culture of castor beans is an industry for persons of small means; it does not need a great amount of ready cash. A man with his own land, like our homesteaders, having from 25 to 40 acres, if one-half of it were set out, would be assured a comfortable living. The trees begin to bear at six or eight months from planting, and after one year the yield from reasonably rich land is from 2,500 to 3,000 pounds per acre, for which our company is offering \$60 per ton. Parties on all the different islands have recently entered upon the cultivation of the plant with the prospect of still others taking up this branch of a new and promising industry."

KUKUI OIL MANUFACTURE.

In an article on "lapsed and possible industries" in the Annual for 1903, mention was made of kukui oil as being at one time an article of export, and from its reported superiority as a paint oil should figure again among our islands' industries. Enquiry from the Eastern States for this product and terms thereon has led to some investigation in order to obtain practical figures as a working basis for the re-establishment of this as an industry, but as yet with little result. Apparently no systematic effort has been put forth along this special line, although a trial was made by the Koelling Co. some two years ago of a small lot as a test,

but the figure offered from abroad would not warrant them to divert their attention from the regular work they were establishing.

While the kukui tree (*Aleurites moluccana*) is known to grow rapidly and to thrive luxuriantly in sheltered localities throughout all the islands of the group, bearing its profusion of oil-bearing nuts to a great age, we do not learn what, in weight, or measure, would be considered the average yield per tree. The nut is said to contain about twenty per cent of oil. An item in an early native paper (1857) shows that "a woman in the hills above Palolo expressed 280 gallons of kukui oil in two months' time with a kind of lever press, a great improvement on the squeezing with a stone, or sort of rolling-pin, which used to be the method. The labor of getting firewood, etc., necessary for the preparatory baking to which the nuts have hitherto been subjected, suggested the idea that boiling might do as well, so the nuts were boiled in oil, which answered the purpose."

TOBACCO CULTURE.

Encouraging prospects have recently been shown relative to the cultivation of tobacco at these islands from Sumatra seed, samples of which grown at the Federal Experiment Station, have been forwarded to the Eastern States for expert report thereon. In the meantime a practical test is being made upon a section of selected land in Hamakua, Hawaii, where the soil conditions give promise of even better results than were obtained at the station. For the purpose of this test the Board of Agriculture assists in meeting the cost of production and the expense of necessary shelter construction.

Director Smith reports a yield of 1400 pounds per acre, in curing which reduces it nearly one-third, but a ready market is assured for a product of the class now aimed at, and also a promised influx of capital should the experiment undertaken meet expectations.

Tobacco growing is no new thing in Hawaii-nei, Various efforts have been made from time to time, notably on Kauai and the larger island, Hawaii, in systematic cultivation, but through want of proper seed and skill in curing the leaf we have failed so

far in producing a commercial article to include in our list of domestic exports. The common variety, (*Nicotiana tabacum*) has long been cultivated by the natives throughout the group. It is said to "thrive admirably and yield a weed of fine flavor, but too strongly narcotic to be available for cigars by ordinary methods of curing the leaf."*

COFFEE.

While coffee growing on these islands may lack the enthusiasm that prevailed a few years ago among those engaged in the industry, and several tracts have been abandoned or devoted to other products, it is gratifying to find, and perhaps an agreeable surprise to many to learn, that the exports of coffee not only show no diminution, but is making steady advances. For the year 1901, the total exports were 551,805 lbs. In 1902 it increased to 1,210,098 lbs., while for 1903, the amount to United States ports alone was 1,852,162 lbs.

This indicates that there are those, fortunately, who labor on, firm in the belief that with the return of fair market prices our choice grades would command figures to insure a satisfactory return upon the capital invested; and with a protective tariff or a bounty on the home-grown product for these islands and Porto Rico, this would be further guaranteed.

To this end steps have been taken for united action before Congress in the interest of this infant industry of her insular possessions, in their struggle against the cheap labor product of Brazil and other foreign coffee producing countries.

PINE-APPLE CULTURE.

Among the tropic fruit culture to which the spirit of diversified industries is directing or attracting many agriculturists of the islands the most pronounced because, perhaps, the most systematic, is that of pine-apples, and while the center of activity may be said to have gravitated toward the Wahiawa colony, Oahu, there has been more effort put forth in this line on the other islands than heretofore, and direct foreign shipments have been made which is hoped will meet with encouraging figures.

*Flora of the Hawaiian Islands, page 311.

In the Wahiawa extending area being put into pines the smooth Cayenne variety has been adopted as a choice marketing, shipping, or canning product. The local market has been favored the past two years with liberal supplies of this fine fruit at prices encouraging to housekeepers' orders, yet in a recent published showing made by so practical and experienced a farmer as Byron O. Clark, it was shown that a five acre tract could be cleared, planted, cultivated and harvested at a total outlay of \$1,053.95, and the returns at the end of the second year would show a net profit of \$971 for this first crop, and one planting was good for five years.

For the utilization of this product at its best state, the cannery capacity of Pearl City and Wahiawa is being increased since the shipment abroad of preserved pine-apples to various markets of the Eastern and Pacific states are acknowledged as a superior product. A cannery is also in progress for South Kona, and Hilo proposes to do likewise. The only question of solution is the matter of price to compete in the world's market with the Singapore article, and this difficulty mainly lies in the cost of transportation right here at home. This it is hoped will be remedied in the near future. A recent steamer shipment of the bulk of this season's canning was 250 tons.

VANILLA CULTURE.

From Kona, Hawaii, come encouraging reports of the effort made in the introduction and cultivation of the vanilla bean, fully bearing out the views of its first introducer and grower, Mr. John Kidwell, from experiments at his Beretania street garden, a few years ago, of its adaptability as a commercial product of these islands. In this effort for the establishment of its culture the cuttings were obtained from the Fiji islands by Mr. E. R. Edwards, but few of which, unfortunately, reached their new home in good condition, but with watchful care these are now coming along finely and give assurance of satisfactory results.

The outlook is further encouraging from the fact of a ready market for first quality beans at good figures which will give returns of from \$1,000 to \$5,000 per acre—according to their grade—after the second year. The reported experience of Ta-

hiti shipments, of mixed low-grade qualities, gives our growers timely warning.

Most of the vines in the Kona plantings are located at about 1,100 feet elevation, but will do well between 800 and 2,000 feet, requiring a rainfall of from 70 to 100 inches.

COTTON GROWING.

The attention of Director Jared G. Smith is being given to the possibilities of these islands in the cultivation of cotton of high grade, and experiments are now in progress for practical test and report thereon. A paper on this subject was given in the "Annual" for 1898, pages 57-61, which related a recent test in this direction deemed quite satisfactory, and showing what had been done in years gone by with the sea-island variety when civil war prices prevailed. The difficulties met with in its culture at that period can doubtless be modified by the scientific aid which the Experiment Station corps can render the farmer of today, and with the reduced cost of transportation, present day growers would have quite an advantage over those of 1863. The serious question of labor, however, may not promise so satisfactory a solution.

A SEA-SERPENT IN HAWAII.

By W. H. Henshaw.

THE first brown-skinned emigrants to the Hawaiian Islands found a thrice-blessed land, where Nature was all smiles and where pests as yet had gained no foothold. The hum of the mosquito was heard in the land neither by night nor by day, and the house-fly—that domestic plague and active carrier of disease germs, was not. Neither the centipede nor the scorpion had found its way hither; nor the mouse, nor the destructive Norway rat,* and the not over-abundant island insect life was for the most part harmless.

*The writer is aware that mice, as well as rats, are frequently mentioned by writers as indigenous in the islands, or at least as having been found here by the earliest European visitors. In the account of Cook's discovery, however, mice are not mentioned as having been seen, but

It was not until centuries later, when the ships of the white invader ploughed their way islandward, that flies and mosquitoes, centipedes and scorpions, and a host of insect pests, large and small, were introduced to temper the delights of the island paradise for all future time.

Perhaps the absence in the islands of snakes would count for more in the minds of most people than anything else, and no fact in relation to island natural history excites livelier feelings of gratitude in the breast of the new-comer than the absence of these much-dreaded and much-maligned creatures; for, despite the fact that many—I had almost written most—snakes are excellent friends of man, and spend their lives in his service, the fear of them is well-nigh universal; and their destruction not only excites no feelings of compassion, but is deemed a worthy and virtuous deed.

That snakes have not gained a foothold in the islands ere this is little short of a miracle. In every land are those who are capable of introducing anything that walks, crawls, flies or swims into their own or other domains, either from the love of experiment, or with the vague idea that the introduced creature will in some way prove serviceable to man. The suggestion has more than once been made that snakes be introduced into Hawaii with the idea of exterminating rats. Unfortunately, the knowledge of such philanthropists rarely equals their zeal, and hence the necessity in every country for stringent laws regulating the introduction of plants, insects and animals. Such laws are already in force in the United States, and they are no less needed in these islands, which, from their isolation, are exceptionally easy to guard in this respect.

rats only; and it is not likely that mice would have been overlooked if present. It is true that Bloxham in 1825 speaks of the presence of mice in the islands, but if introduced from Cook's ships, as they may easily have been, they had had nearly fifty years in which to multiply. The ships of those days were overrun with vermin, and it is very probable that from Cook's ships came at least one of the two species of rats now numerous in the islands. Neither one of these, however, is the original Hawaiian rat which, as Cook tells us, resembles "those seen at every island at which we had as yet touched."

The indigenous Hawaiian rat has apparently long since become extinct, having succumbed to the competition of its larger and fiercer foreign relatives, and to the attacks of cats.

The "leaf-hopper" offers a glaring instance of the results of carelessness in respect to the unrestricted importation of plants. This insect, with little doubt, was introduced in seed cane, the sacrifice of which would probably have entailed the loss of a few hundred dollars. Although its introduction dates comparatively few years, this mischievous insect is now widespread over the islands. Already it has damaged cane to the value of many thousands of dollars, and the account will foot up into millions in the years to come. Though its numbers here may be reduced by remedial measures, the insect can never be exterminated. So far as this deplorably destructive insect is concerned, it is too late to close the door. But there are many other creatures quite as destructive as the leaf-hopper only biding their time to enter the islands, and to add their quota to the destructive forces already here. It is for those in authority to say whether the enemy shall find the doors open or closed.

However, to return to our subject, even without the direct and intentional agency of man, live snakes have actually reached the islands, not once or even twice, but on a number of occasions, and fears have been expressed that eventually one of these visitors may survive to propagate its kind. The individuals alluded to have been transported to the island of Hawaii, and no doubt also to Oahu, from California in baled hay.

At first thought it would seem impossible that any creature could withstand the enormous pressure applied to baled hay even for a few hours, to say nothing of weeks; but at least one individual has emerged from his confined quarters in sufficiently good condition to live for several days. Most of them, however, have died or been killed almost immediately. Under the same pressure lizards in baled hay are flattened to the thinness of paper, and come out as dried mummies.

It is proper to add that the danger of colonization of the islands by snakes by the above or by any other method is at this late day very slight, whatever it may have been in the past. The mongoose, with its many faults and its few virtues, is here already in force, and this animal has a special fondness for snakes of all kinds, the large and the small, the poisonous kinds and the

harmless ones. The chances, therefore, that the islands will ever need the services of a Saint Patrick are very slight, since the multiplication of snakes in the midst of a colony of mongoose is a practical impossibility.

The main purpose of this paper is, however, less to speak of snakes in general than to record the arrival upon the island of Hawaii of an individual snake—a true sea-snake, the *Hydrus platurus*. This individual was found by some boys at Laupahoe in December of 1902, and was brought to Mr. E. W. Barnard alive. This gentleman, sensible of the rarity of so curious a creature, promptly bottled it in spirits and sent it to the writer for identification.

When found, the snake was apparently sunning itself on a spar over the sea, a relic of some wreck, and had, perhaps, come ashore for the purpose of shedding its skin, which still was loosely attached to the body; or it may have been driven ashore by a recent storm and by the unwonted coolness of the water.

This snake belongs to the large family of *Hydrophidae*, or sea-snakes, which contains several genera and some fifty species. These are all inhabitants of warm, tropical waters, especially of the Indian ocean, and are characterized, among other things, by a tail compressed laterally to serve as a fin, and by a small and permanently erect poison fangs.

The chief purpose of the latter is to kill prey, and not as a means of self-defense. Nevertheless, sea-snakes are most vicious creatures, and when disturbed will strike wildly at any and all objects in reach, and generally with most fatal effects.

It may be regarded as peculiarly fortunate, therefore, that the individual that landed at Laupahoe met his fate so promptly. As denizens of Hawaiian waters, sea-snakes would be most unwelcome.

Sea-snakes, like their brethren of the land, breathe by means of true lungs, but in the former the lungs are of great size, extending nearly the whole length of the body. They thus possess an enormous air space, which enables their possessors to remain beneath the water for long periods.

All of the sea-snakes are adept swimmers, live solely upon

small fish, and, being viviparous, rarely or never come to land even for purposes of reproduction. With one exception, all the species are marine, and never leave salt water for fresh. One species, however, inhabits the fresh water lake of Taal in Luzon.

None of the *Hydrophidae* are very large, though some species are said to reach the very respectable size of eight to twelve feet. Our specimen was less than two feet long, and may, perhaps, have been a young one. Many of the species are brightly colored, being green or yellow, with black blotches above and yellowish below in sharp contrast. Our specimen was dark brown.

The species to which our waif belongs has a very wide range on both sides of the Pacific, all the way from Australia to southern Japan on one side, while on the American shore it has been found from Ecuador to Mexico. Moreover, it is known to occur to the south of us in Polynesia, in Samoa and Pomotu, and probably elsewhere. We cannot say, therefore, from what region our visitor came, but comfort may be taken in the fact that, whatever its course to the islands may have been, the creature was very far from home, and a long time is likely to elapse ere another of its kind is reported.

The captured snake was shown to a number of natives, old and young, but none of them knew what it was, or had ever heard of any creature like it being found in the islands. The fact that the Hawaiian language contains no name for snake is of itself enough to prove the absence of sea-snakes from island waters, since, if they were of even casual occurrence here, the language would surely possess the means of designating them.

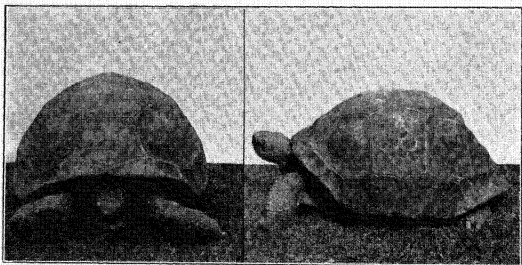
DURING this past summer both Hilo and Honolulu have inaugurated the anti-mosquito campaign in these islands, for the systematic eradication of all breeding places of these annoying, infectious pests. The work in this city is under the direction of the Board of Health, the fund therefor being the contributions of public-spirited citizens.

A HISTORIC TORTOISE OR LAND TURTLE.

(*Testudo mycrophyes*. Gunther.)

HERE is cared for at Waikiki by an aged couple, retainers of the late Queen Dowager Kapiolani, a tortoise, or land turtle, of great age, of which the following brief history is gathered:

The subject of this sketch was brought to these islands by Captain John Meek "from Kahiki," the natives say, "on his arrival at these islands." This means, from some unknown for-



eign land about the year 1812, but in actual fact it must have been a number of years later.

Captain Meek first touched at these islands as first officer of a vessel in the Northwest trade in 1800; then visited and sailed out of this port as master on trading voyages between Mexico and China from the year 1812, and became a resident of Honolulu in 1825.*

It is known that he brought a number of horses from the coast during those early voyages, and report says he brought

*P. C. Advertiser, Jan. 30, 1875.

cattle also, with many of these land turtles, which latter, very likely, were brought on one of his trips from Mexico. These were said to have been all kept on the Meek premises, on King street, and attracted the attention of the chiefs, foreigners and common people. This fact would bring it to not earlier than 1825.

Upon their disposal, or distribution, this one, illustrated above by a front and side view, was given by Captain Meek to King Kaukeouli, Kamehameha III. During the time the High Chief Paki was chamberlain to the king, it was under his charge and cared for at his Aigupita premises, Ewa-wards of the new Young Hotel, on King street.

After the death of the king and of Paki, this tortoise became the property of B. Namakaeha, first husband of the late Kapiolani, and was taken to his premises at Kaalaa. At Namakaeha's death it was moved to Waikiki, where it has since been cared for by the same two old retainers from Paki's time. Upon the death of Kapiolani a few years ago, it naturally came into the possession of her nephew, Prince David.

This species of *Chelonia* is remarkable for great age, so the supposition of this one being 100 years old or more may not be far amiss, since it is said to have been of large size and apparently of good age at the time of its arrival at the islands.

There is another similar venerable-looking tortoise in Nuuanu Valley, owned by Mrs. M. E. Foster, which is said to have been brought here on a whaleship many years ago from the Gallipagos Islands, their natural habitat, but no further particulars can be gathered. These two are probably the only ones of their kind on the islands.

HAWAIIAN WIT.—In 1846, in a royal progress of Kamehameha III., a spear exercise was performed before His Majesty and retinue of chiefs at Mokulau, Maui, by an old bald-headed warrior, who said his baldness was the result of his head being so big he could not raise hair enough to cover it.

STREETS OF HONOLULU IN THE EARLY FORTIES.

BY GORMAN D. GILMAN.

IN the spring of 1841 I had left the brig in which I had come around Cape Horn, as an occupant of the forecabin rather than the cabin, and at Valparaiso joined the good ship Gloucester from Boston, with the privilege of working my passage to Honolulu. We had on board a large reinforcement of missionaries of the A. B. C. F. M. on their way to the islands, among them the Rev. Mr. Daniel Dole and wife, the father of the present Governor and the first principal of Punahou School (now Oahu College); Mr. Rice, whose widowed lady still lives to see the great changes wrought by her companions; the Rev. J. D. Paris and wife, who is at present represented by his son, a senator, and his daughter, the poetess; Rev. Elias Bond and wife, and others.

After a pleasant but uneventful voyage, the ship rounded Diamond Head just at sunset, giving us our first glimpse of the tropic scenery back of the city of Honolulu, but too late to enter the port before night, so the ship was laid "off and on" until the morning, when the early hours saw us standing in for the entrance to the port. Half way between Diamond Head and the harbor the pilot boat met us, the first revelation to the many on board of the Hawaiian, in his native simplicity, I might almost say, for in the freshness of the breeze and the flying spray, the men had doffed their foreign garments, and their brown skins glistened with the water which flew over them and their whale boat. I can recall, even at this distant time, the profound impression made upon two of the missionary ladies, one of whom was Mrs. Dole, by their first sight of the natives among whom they were to pass their lives. It was with an evident feeling of depression that they retired to their cabin. Not the least unique figure was that of the pilot himself, Mr. Stephen Reynolds, who with his broad

brimmed Panama hat and white cotton shirt, with an ample collar, and a pair of nankeen trousers without suspenders, endeavoring to keep his balance in the unsteady boat until he was safely alongside and on board,

The anchor down and the sails furled, the passengers made ready for landing. A large sixteen oared boat belonging to the governor had been obtained to take the missionary party on shore. My position as sailor gave me the place of bow oar in Capt. Easterbrook's gig, manned by five men. We had as our passengers, the Captain and the supercargo, Mr. William Hooper, of the firm of Brinsmade, Ladd & Co., who was afterwards American consul. It was a long pull, and a steady race between the two boats as to which should be the first to reach the shore. The boys in the gig were successful and I had the pleasure of throwing my bow oar onto the little landing place at the foot of Nuuanu street, thus winning the race.

What is now known as Queen street was then only a pathway along the water's edge, the water coming up most of the way between what are now Nuuanu and Kaahumanu streets. Along the mauka side of the street was a collection of straw houses with lanais. There was not a frame building at this time in this distance between the two streets. On the Ewa side of Nuuanu street stood the building occupied by B. L. & Co. in which was also the consul's office, where I was to be domesticated as the youngest clerk of the establishment, and which was my business home for some years. Besides my duties as clerk I performed some services for the consul. Makai of the store was a small wharf built by B. L. & Co. standing out into deep water so that a vessel could load alongside or discharge its cargo. Well on in the direction of Ewa there were the premises of the old Manini family and beyond them the Nuuanu stream. Coming back to Nuuanu street and passing mauka, I had my first glimpse of the Hawaiian maiden. She was coming down the street barefooted, and with only a *mumu* for a garment. I do not doubt that she was as curious to see the strange white boy as he was to see her.

On the left hand side of the street stood the store of the old gentleman, familiarly known as "old Grimes," an American who

had been for very many years a resident of the place. His store was filled with a varied assortment of goods for trading with the natives. His wife was a native woman, and she had a brother whose name was Manuahi, who was permitted to be a salesman behind the counter. Naturally feeling favorably inclined towards his countrymen and women, he was the favorite clerk with the customers of the establishment, for when selling goods, and particularly measuring off dry goods, he was often requested by the buyer to slip his scissors further along than the exact measure, thus giving sometimes quite a large extra piece. This custom caused the use of his name all over the islands as a synonym for an over measure in the way of trade.

Going mauka, (the latter word means in the native language *from the sea*, or mountainward, as its companion word, makai, means *toward the sea*, so that they may be used anywhere on the islands), we come next on the left hand side of Nuuanu street, to the large lot occupied by the Hudson Bay Company, surrounded by a high stone wall. The offices of the Company were in a two story wooden building with the end and entrance on the street. The agent was Mr. George Pelly, an Englishman of the Englishmen, associating very little with the people of the town, as in his opinion became a representative of the great Hudson Bay Company.

The lot next mauka brings us to the corner of Nuuanu and King streets. My recollection is that King street did not receive its distinctive name till some time later than that of which I am writing. Quite a number of the streets waited several years after they were laid out before they received names, and it would be hard to tell now who named them. Like Topsy, "they just grewed."

On the corner of the street alluded to was the well known saloon of Joe Booth, a typical Englishman of the opposite character from his adjoining neighbor, Mr. Pelly. Joe, as he was familiarly called by almost everybody, was famous for his large hospitality to all sailors visiting the port, and the "Blonde" was a favorite resort because of the genial characteristics of its host. From the tall flagstaff at the corner of the street floated

the flag of Merrie England, and no more patriotic representative of his country lived in town.

Crossing Nuuanu street and passing on the left a row of native houses and lanais or open spaces, we come to the corner of Hotel street, where stood a building occupied as a store by a Chinaman. It was also said to contain rooms for the benefit of those of his countrymen who were addicted to the use of opium. At that time, comparatively few of the natives or foreigners indulged in the drug, but it was said that occasionally some of the gentlemen from Bohemia "hit the pipe" in the bunks of the Chinaman.

On the opposite side of the street, a building was put up by the merchants of the town for a somewhat singular purpose. There had come to Honolulu from Australia a couple of enterprising young men who had established themselves in business in the small one story house cornering on Hotel and Nuuanu streets. They had opened a store with a very small variety of dry goods, mostly common cotton cloth and stockings. Up to their arrival, most dry goods were sold at the rate of so many yards for a dollar. If silk, it might be one yard, calico might be two or three yards, cotton cloth, four yards for a dollar, the uniform prices observed by all merchants. These enterprising Englishmen, not having a great variety to offer, and wishing to draw custom, announced to the native buyers that they would sell six yards of cloth for a dollar, and a pair of stockings for twenty-five cents, instead of the usual price of fifty. No doubt these prices paid them well, and as trade increased were obliged to purchase a larger variety of dry goods to add to their stock, and acted on the principle that "a nimble sixpence was worth more than a dull shilling." As their trade increased proportionately, a meeting of the merchants was called to see what measures could be taken to crowd these interfering young men out of business. It was resolved to build a store on the right hand side of Nuuanu street, diagonally across from the new comers, and to endeavor to check their rapidly growing popularity by underselling them. An agreement having been made by all the merchants that they would not from that time furnish them with any more goods,

they expected to be able to compel them either to come to the old rates or go out of business. The merchants counted without their host. As is generally the case, there was some one who was not true to the agreement, commonly suspected by the rest to be a fellow countryman on King street, who was more anxious for a little profit than for his reputation, and so the game of opposition did not last long.

Passing Hotel street there were scarcely any houses except a few of the natives, until we come to Beretania street. On the corner of Nuuanu and Chapel streets, was one of the most pretentious mansions in the town built of coral stone, handsomely joined, with wide verandas facing the beautiful Nuuanu valley. This was occupied by Mr. Skinner, an English gentleman engaged in merchandising. As it comes to my recollection, after these many years, Mr. Skinner's family was an illustration of the general condition of the intercourse between the English and American residents. There was comparatively little social interchange. Of course it was not ostracism, but except on special occasions they seldom mingled. I may say, that this condition of society was very markedly indicated when a few years later the Islands were brought under the English flag. It was then made very evident that our friends from Britain felt their superiority, that the islands had come under British control, and that the Americans must take second place.

Continuing our way up Nuuanu street we come to the corner of Beretania street, which will be as far mauka as we propose to go. On the Waikiki side of this corner stood the residence of Dr. and Mrs. Rooke, who were the foster parents of Queen Emma. This residence was one of the most hospitable in town and the doctor's genial disposition made him many friends. Emma, as she was usually called before the title of Queen was added to her name, was an exceedingly pleasant and agreeable young girl. She was an attendant at the Royal School where the children of the high chiefs were being educated for the positions which they were likely to assume in later life.

Returning to the water side, we will pass along the water front to the next short street—now known as Kaahumanu—

running mauka from the water to what was afterwards known as Merchant street. The space between this street and Nuuanu was mostly occupied by native straw houses with lanais in front of them and used principally as a fish market. The water of the harbor ebbed and flowed on the makai side of the street. There were one or two low story shed like buildings on the Waikiki side of Kaahumanu street, which were afterwards utilized as stores.

The next street mauka, running parallel with the harbor front from Nuuanu to Fort, (beyond Fort street this street was not much more than a mere lane which ran out to the large open space in front of the palace, there uniting with King street,) is now known as Merchant street. On the mauka corner of Nuuanu and Merchant streets stood the store of one of the most noted characters of the town, Mr. Stephen Reynolds, originally from Boxford, Mass. He had been very many years at the islands, and was one of the most remarkable men in Honolulu. He was very peculiar in his dress as well as his thinking. His clothes were cut in his own fashion, generally what we know as the jacket and trousers and made of light colored nankeen. His shirt was always of unbleached cotton cloth, destitute of any linen bosom, buttoned in front at the throat with a wide turned over collar, white stockings and low shoes, and a Panama hat destitute of any ribbon completed his costume. This style I do not recall ever to have seen changed. The simplicity of the costume was somewhat characteristic of the man. A visitor to his store went up the half dozen well worn planks to the somewhat rickety veranda and entering within found a most miscellaneous assortment of dry goods and notions in what would be to him an indescribable confusion, yet the kindly gentleman, past middle life, with a very pleasant manner to his native customers, found no difficulty in meeting their wishes, and enjoyed a large share of their confidence. It was not, however, so much as a merchant that he impressed himself upon the community, but as a man of mental ability. Naturally a student, with an evident predilection for the study of the law, he was, in the absence of any educated attorney residing in the town, the person who was generally

consulted on matters that were coming before the courts. In two most important cases which I recall, one the trial of Mr. L. L. Torbert, and the other the celebrated case of Messrs. Ladd & Co. against the government, which forms a part of the history of those times, Mr. Reynolds was engaged as principal attorney for Ladd & Co., and his conduct of these cases was considered very remarkable for an unprofessional man. I may add here that the kindness of Mr. Reynolds' heart was shown in later years by his establishing a home for young Hawaiian girls, where he gave them the best education which could be provided for them.

On the makai side of the road (now Merchant street), from Nuuanu to Kaahumanu street, were empty lots, with blocks of coral for fences. The next building on the mauka side was the store of Messrs. John and William Paty, a two story building, the second story being used for offices. Capt. John Paty and Mr. William Paty were brothers from Plymouth, Mass. The captain had an enviable reputation as captain of the bark *Don Quixote*, the regular packet plying between Honolulu and San Francisco. Some years later he was complimented with a blue silk commodore's flag with the figures 100 in white upon it, indicative of his one hundreth passage made between the coast and the islands. Mr. William, the brother, had charge of the general merchandise store, which stood at the head of Kaahumanu street.

The descendants of Mr. and Mrs. William Paty are the well known family of the Mott-Smiths. A little incident is worth relating here. The first time that a sufficient number of ladies could be gathered together to form two sets for dancing was in the home of Mr. and Mrs. William Paty, on Beretania street.

Continuing our walk along Merchant street, on the mauka side, the next was a wooden building of two stories with a lookout upon the top. It was generally used by the public whenever the cry of "Sail ho!" rang through the streets. Near the corner of Merchant and Fort streets, mauka side, was a small one story building which was later destroyed to give place to a fine stone building erected by Capt. Snow, a ship master who had followed the trade between Boston and Honolulu and retired and entered into general business. On the makai side of the street, were the premises of

Mr. Wm. French. These extended from Kaahumanu to Fort street, surrounded by a high picket fence with some noble hau trees standing just within the line of the fence. The building was quite a sizeable one of wood, with a high basement and large trading rooms above. Mr. French was one of the oldest residents and a person of considerable influence. The house was better known a little later as that of French and Greenway.

Before describing Fort street we will take a look at the famous premises of James Robinson & Co., at that time the only ship builders and repairers on the islands and in fact in the Pacific. It was a rather peculiar partnership in the make up of the firm which began in 1822, though the shipyard at the point, "Pakaka," was not established till 1827. The firm comprised Jas. Robinson, Robt. Lawrence and Robt. Holt. The two former were together in the *Hermes*, which vessel with the *Pearl*, set forth from this port on a whaling cruise, and both ran ashore twenty days out on an unknown reef afterwards named for the lost vessels. Mr. R. built a schooner from the wrecks in which with eleven others he reached these islands in Oct. 1822. This vessel was the foundation of their subsequent business and fortune. Mr. Robinson, the senior of the firm, was considered a ship carpenter of skill and ability; Mr. Lawrence, familiarly called "Bobby," was the book-keeper, house keeper, and general steward of the establishment. Some of his boarders, all men, used to remark that the bread which he made occasionally tasted of the oakum which he was in the constant habit of picking from bits of tarred rope which he carried in his pocket. Mr. Holt was an American and much the best equipped for managing the business of the partners. They occupied for their headquarters a two-story stone building under the walls of the old fort, the lower part unoccupied except for storage, the upper part used as office and living apartments. At the time of the death of the last surviving partner, Mr. James W. Austin, who was their attorney, went into the lower part and, guided by some directions, unearthed a large amount of coin which had been secretly and safely buried there.

Proceeding along Queen street on the makai side, we come to the old fort. This is so historically well known that it needs no

description from me. Its walls extended along the street to some distance past Fort street, at the foot of which the large gateway served for entrance and exit. Over this gateway on two occasions were erected scaffolds for the execution of two couples, men and women, for having committed murder. Indicative of the natives' superstition was an incident connected with the last execution. The streets near and approaching the fort were packed with natives, men and women, who had come from all parts of the island to witness the execution. They had waited as patiently as could be expected for the appearance of the criminals, but the moment that the drop fell, and it was evident that they had paid the penalty of their crime with their lives, the people as if actuated by one common thought, cried out "Ghosts, Ghosts," and ran like a flock of frightened sheep in the opposite direction as fast as their legs could carry them, and in a short space of time the streets were cleared.

On the mauka side of the street, on the corner of Kaahumanu, was the store of the firm of Henry Skinner & Co., English merchants who figured quite conspicuously two or three years later in the events of Lord George Paulet's seizure of the islands. The junior member of the firm, who was commonly called Bobby Robeson, was said to have put in a claim against the government for the sum of "three thousand dollars for personal injuries." It was commonly reported at the time that the "injuries" were the result of an altercation which he had with his washerwoman, and that she got the better of him.

There is connected with the old fort a national incident which, although I have referred to it in a previous article, may not be amiss here. It was on the occasion of the cession of the islands and government, forced by the acting English consul Alexander Simpson, and Lord George Paulet, an apparently willing tool in the hands of the much more able British consul. The day and hour for the cession had come. The king and his chiefs with Dr. G. P. Judd as the official interpreter, stood on one part of the veranda of the governor's house overlooking the large area of the fort and a little distance ahead from them on the same veranda, though

evidently nearer than the royal party desired, and without any interchange of courtesies other than the most formal, were Lord George, the acting English consul and a few officers. Below on the parade ground were a detachment of the Hawaiian troops and also a little distance from them the British soldiers from H. B. M. Frigate Carysfort. The time having arrived, the king stepped to the front of the platform, which was a signal for quiet from the small number who had gathered to witness the painful ceremony. The American party refused to be witnesses on the occasion, while some of the English residents did not attempt to conceal their satisfaction that the islands were to pass under the English flag. It was then that the king gave utterance with faltering voice to the words spoken in Hawaiian. "The life of the land has gone." The remainder of the brief speech is a matter of record. The official papers were then read by Dr. Judd, and at a given signal a national salute was fired, the Hawaiian flag was lowered, the English flag was raised, and a national salute paid to it. The ceremony being over, the English troops left the fort with the band playing "Isle of Beauty, fare thee well," which was felt by many of the old residents as a needless insult added to injury.

On the Waikiki side of the fort was a short street running from Queen street to the water. Near Queen street was Halekauwila, one of the largest and finest thatched houses on the island, the town residence of the king and queen and also at times the place of meeting of the council. Makai at the water's edge, was a small cottage of plastered adobe, with a veranda extending all around it, called Mauna Kilika, also used for government purposes, and later by the English Admiral Thomas who came to the islands to restore the flag and the government to the rightful authorities. Beyond this towards Waikiki were the premises occupied by Governor Kekuanoa, and beyond these the residence of the high chiefess Kekauonohi and her husband, Kealiihonui, son of the former king of Kauai, who was brought as a hostage from that island and married to his royal companion. These were the only buildings of any importance on the whole length of the street from Fort street to the mission premises, with the single

exception of the Oahu Charity School, a coral building which was erected for the education of the half white children of the place. This school was conducted by Mr. A. Johnstone, whose square two story residence stood the last house on the mauka side of King street before coming to the plains, called Kulao-kahua. I think that the present residence of Mr. C. H. Atherton occupies the spot where Mr. Johnstone's house stood. Beyond this the plain stretched from the slopes of Punchbowl to the sea. broken only by two residences, one called Makiki, with its little grove of hau trees, the only green spot on the extensive plain. One other place seaward was called Little Britain, residence of the late J. N. Wright.

Coming again to Fort street and going mauka, the first building was on the Waikiki corner of Fort and Merchant, where Mr. John Cummins had a store. Mauka was the only Chinese bakery managed by Sam Sing & Co., on the site of Lewers & Cooke's late store. Adjoining on the corner of King street was a story and a half building used as a store, later occupied by E. O. Hall. On the Ewa side of the street there were only native buildings with an adobe fence in front. Proceeding mauka on the same side, was a small adobe building near Hotel street occupied by Mr. E. C. Webster, as a dry goods store. An amusing incident connected with this gentleman may be worth relating. Standing by the gateway in front of his store, early one morning he was accosted by Admiral Thomas, who looking up at the sign and seeing the name Webster, asked him if he was any relation to the great Daniel Webster, to which he quickly replied, "Yes sir, I am his grandfather." The Admiral apparently appreciated the humor of the situation, as Mr. Webster was a smaller man than the average, scarcely weighing a hundred pounds, but though diminutive in size, he had an active brain and made himself felt on several occasions by his ability in legal matters, and in connection with Mr. Reynolds formerly alluded to conducted several very important cases.

On the opposite side of the street were the premises of Pierce & Brewer. Their building was quite retired from the street and their large premises were occupied by store houses. This firm

were the successors to James L. Hunnewell, who was an officer on board the brig *Thaddeus*, that carried the first missionaries from Boston to the islands, and who afterwards returned to the islands and entered into a very successful business career. There was but one more building on the same side of the street, and that was located on the corner of Fort and Hotel, occupied by the dry goods store of Robert Davis, a native of Honolulu, half white, finely educated in the United States, and afterwards Judge of the Police Court.

Crossing Hotel street mauka, on the right hand side was a small building, the first occupant of which, I do not recall, but subsequently Dr. Mott-Smith and Dr. Hildebrand were located here with an apothecary store on the lower floor and a dentist office above. The next premises was quite a large building of two stories, plastered adobe, and known as the French Hotel. Next mauka, were the premises occupied by Capt. John O. Dominis, father of the late Governor Dominis, who lived there until Washington Place was built. After Mr. Dominis had moved, the place was occupied by the American consul, Mr. Terrill. Then came the premises now known as the Sister's School and then the Roman Catholic church. And about this time, on the corner of Beretania street and Fort, was built the large residence of Mr. Charles Brewer. I recall distinctly, at this period, the planting of the hau trees along the sides of the roads. They were cut up in the mountains, some ten or twelve feet long, destitute of any branches, and the trunks were about the thickness of a man's arm. These were stuck in the ground, and the earth filled in around them. To what size they may have grown since then your reader can tell better than I. (The last succumbed with the erection of the McIntyre Building.—Ed.)

On the Ewa side of Fort street on the corner of Hotel stood the dwelling house of Mr. John Colcord, a blacksmith by trade, a very worthy man. There were no other buildings of note that I remember on this side of the street until we came to a somewhat narrow lane extending from Fort street to Nuuanu, and about midway of this lane on the makai side, was the cottage of the well known Father Damon, the seaman's chaplain of the port.

Few men of that time were more respected by the seamen and landsmen than was the chaplain. He officiated on Sunday at the Bethel to the small congregation that attended the services during the off seasons. During the time that the whale ships were in port the room was generally well filled with sailors from the ships. Speaking of the chapel reminds me of an incident that occurred there which caused me some embarrassment. A ship had arrived in port for wood and water with a large number of Mormon emigrants, under the leadership of the afterwards famous Sam Brannan of San Francisco notoriety. An evening meeting was announced, at which the said Brannan acting as a Mormon elder presided. I had in some way become possessed with the idea that these Mormons had been recruited from the Methodist denomination. During one of the pauses in the service, I started to sing to a familiar "Pennyroyal meter" as it used to be called at home, the well-known hymn, "When I can read my title clear," with the Pennyroyal variations, "and wipe my weeping eyes." Two or three voices in the crowded room essayed to help, but left me on the second verse to finish it alone. Not willing to acknowledge defeat, I started the third verse, which I had to sing entirely as a solo. As I could not read a note of music and sang only by ear, remembering only the old fashioned peculiarities of the tune, my effort was not a success.

Branching off from Fort street as we go mauka, there was a bit of road extending its somewhat crooked way from Hotel street to Beretania street. On its left-hand side was a long two-story coral building in which Dr. R. W. Wood had his office. In the upper story, it might have been a few years later, Capt. Newell and his family resided. Capt. Newell will be remembered by the residents of a little later period as the commander of the vessel which bore away from the islands to China, Hon. George Brown, United States Commissioner, who had ceased to be "persona grata" to the Hawaiian government, and also the well known and popular Capt. John Dominis. The vessel and her passengers were never heard from after sailing. It was generally supposed that she was wrecked in one of the fierce typhoons of the China seas, though for many years the devoted wife and

mother was ever expecting to hear of the rescue of her beloved husband.

On the Waikiki side of the street and mauka of where the only engine house in the city stood was the residence of Mrs. Dowsett, whose well known family have been prominent in Honolulu affairs for all these years. Still further on the mauka side of Hotel street we come to the famous Adams' premises, which the old gentleman occupied with his numerous descendants. Beyond these, still towards Waikiki, was a little single cottage of Mr. George Pelly, agent of the Hudson Bay Company. The high stone wall around the premises was considered indicative of the exclusiveness of this representative of the great company. Directly mauka of these premises but in the "Adams' yard," as it was called, was the building occupied by the Odd Fellows, the first organization of this Order instituted in the North Pacific. I had the honor of being the first initiate and with William C. Parke of beloved memory, formed one of the charter members, giving it its name of Excelsior, anticipating what it might attain to, and which expectations seems to have been realized.

We come now to what is known as Alakea street. On the Ewa corner makai of this street was a fine large straw house which I remember at this time as the residence of Judge Robertson, a man well known and still remembered for his sterling worth and integrity of character. On the Waikiki corner stood a two story stone house, occupied by Mr. James Jackson Jarves and his wife. He was the promoter of the effort at silk culture at Koloa, Kauai, which proved a failure for the lack of a sufficiently low temperature to allow the cocoons to come into the proper condition to produce silk. See Mr. Jarves' very full account in his book, "Scenes and Scenery of the Sandwich Islands."

Mr. Jarves was also at one time the editor of the weekly newspaper, called *The Polynesian*. A startling announcement was made in one of its issues which caused no end of speculation and talk. It stated with a good deal of minuteness that "a young American had disappeared on the morning of the Fourth of July; when last seen he was entering the gates of the fort, since which time no trace of him had been found." The secret leaked

out before the next week's issue that Mr. Jarves had taken that day and occasion, for forswearing his own country, the United States, and had taken the oath of allegiance to His Majesty Kamehameha III.

Crossing the street and passing mauka on the left hand corner, stood the little cottage of Mr. William Wond, a somewhat noted saloon keeper of the better sort. The little cottage had, however, another occupant whose name has become associated with the introduction of Odd Fellowship into the islands. Dr. Watson brought the first charter for a lodge of the Order and instituted Excelsior Lodge, which has proved itself worthy of its name, its course ever having been "onward and upward," I am recently informed by the senior officer of the Lodge that I am now the only one living of the original charter members. Sixty years is a long look backward. This building stood where the Honolulu Library now stands.

On the opposite Waikiki side of the street was erected a little later, perhaps, the first Hawaiian theatre. There are those who well remember it and the scenes enacted therein. The establishment of this theatre was largely due to the efforts of a set of young amateurs, among whom was Charley Vincent, a well known carpenter, and Mr. J. H. Brown, a man about town, and later Captain of the Honolulu Guards and Police Chief. One evening in particular was noted for the performance of the opera of "Martha," of which Kamehameha IV. was the stage manager, while Queen Emma and Mrs. Bernice P. Bishop and other noted ladies of society formed its chorus. The programs were printed upon white satin. There may possibly be some of these souvenirs still to be found in Honolulu. Mauka of the theatre was the little cottage occupied by Mr. Charles R. Bishop and his young bride Bernice Pauahi Bishop. Mauka of this was the quite large residence occupied by William French.

The next parallel street was Richards street. Makai of King street was erected by Mr. B. Shillaber, an American engaged in the China trade, "the Bungalow," something after the style of the East India houses, where there was a general dispensation of bachelor hospitality. Mauka on the palace side of the street was a series of low one-story buildings occupied at different

times by the Princess Victoria and her brother, Prince Lot, Kamehameha V. Next mauka were the old premises of the Sumner family of which your courts have heard not a little in the last few months. Still mauka crossing a narrow lane, afterwards designated as Palace Walk, came a large open ground in which was the residence of Haalelea. And mauka of this, coming up to Beretania street, was the residence of Kaeo, and Lahilahi, the parents of the late Prince Albert recently deceased. The Central Union church now covers the ground formerly occupied by these houses. Adjoining, on Beretania street, was the residence of the French consul, Jules Dudoit, in whose family were also Mrs. and Miss Corney, his wife's mother and sister; premises subsequently occupied for many years by Jas. Smith of land office memory. From this place the consul and his family moved in 1845, to their newly completed mansion on the opposite side of the same street, near Fort, known of late years as the Dickson premises. Mons. Dudoit had the reputation of being, among other things, a caricaturist, and often highly amused the merchants of the water front with his timely hits.

The next and last street running parallel was that known as Punchbowl street. There was on the entire length of this street, from the makai side to the slopes of Punchbowl, but one residence, the two-story house, built of coral, of Mr. Henry Dimond, mauka of King street. Beyond the street was the old Kawaiahao church and burying ground. A more forsaken, desolate-looking place than the latter can scarcely be imagined. One to see it in its present attractiveness of fences, trees and shrubbery, can hardly believe its former desolation, when without enclosure, horses and cattle had free access to the whole space. The transformation was mainly owing to the labors of Mrs. Armstrong, wife of the missionary, who was pastor at one time of the Church.

The houses of "The Mission" I had better leave to be described by some of the children whose homes were there.

Having now taken up the description of the streets running from the makai side of the town mauka, and also having mentioned Queen and Merchant streets running at right angles to the others, we will now turn to the three remaining parallel streets, namely King, Hotel, and Beretania. Beginning at the

Nuuanu stream end of King street there were a few scattering native houses near the river side. The first house that we notice was a store kept by Isaac Montgomery, a true son of the Emerald Isle. He had been fortunate in business and had a fair financial standing. It was generally believed that the temptations of ready money, a quick sale even at small profit, induced him to supply the enterprising Australians with goods desirable to keep up their trade. On the same side of the street was a square medium-sized, plastered adobe house owned by Capt. John Meek. This was used as a lodge room for the new Masonic lodge, the first organized in Honolulu, if not in the Pacific, under the name of "Le Progres de l'Oceanie." This antedated somewhat the formation of the Odd Fellows' Lodge, and many of the business and professional men of the town were initiated as members. I hold a certificate in the handwriting of Liholiho, King Kamehameha IV., as Worshipful Master of the Lodge.

The next premises on that side of the street, as I remember, was occupied by natives and joined the premises of the Blonde, already mentioned. On the mauka side of the street were the large grounds of Capt. John Meek, extending almost the entire length of the block to Nuuanu street. Capt. Meek was one of the noted characters of the place; a retired ship master who had settled in the islands years before and become possessed of large tracts of land and herds of cattle. He shared with Stephen Reynolds the duties of pilot.

Crossing Nuuanu street on the makai side were a row of native houses with lanais, used for a fish market. The first principal building, and a conspicuous one, was the Seamen's Bethel. At the time of our arrival there was no stated occupant of the pulpit. Rev. Daniel Dole, who came with the reinforcement of missionaries was requested to take charge of the little congregation made up of foreign residents of different nationalities in the one place where it seemed possible to gather those who, though differing widely in politics and social amenities, met in this little upper room and united in divine worship. A story was told which marks the estimation in which the British consul, Mr. Charlton, was held, to the effect that those interested in the service wanted

a name for a new singing book which had been gotten together for the use of the congregation. Among other names proposed was the "Honolulu Lyre," to which objection was made that we already had a notorious Honolulu liar, (referring to Charlton) and some other name was selected. Not the least interesting part of the congregation was the gathering of the children, particularly of the members of the royal school, consisting of the four grandchildren of old Kamehameha, of whom three became kings, and also the families of Mr. and Mrs. Gulick and Mr. and Mrs. Emerson, names which have become noted in many lands for their missionary efforts. These and other members of missionary families, (there were but very few children of the residents as distinguished from the missionaries), formed the majority of the Sabbath School, the only one in town taught in English.

There was no other conspicuous building on this side of the street up to Fort street; only some few native houses where fish and poi were sold. Opposite the Bethel on the mauka side of the street was a one-story, white-plastered adobe building, standing end to the street, which was occupied as a tailor's shop by one C. H. Nicholson, a man of large size but finely proportioned, dressed immaculately in the finest of white linen, but to use a common expression, "as black as the ace of spades." When he and his Hawaiian wife, who matched him well in size, took their promenades they attracted general attention. The shop was the favorite rendezvous for the gossips of the village, who generally gathered there in the evening, to discuss the events of the day. This building had the same location which for so many years has been occupied by Castle & Cooke.

A little blind alley between high adobe walls led from King street to Hotel street coming out at Thompson's famous saloon, a man who although he kept a saloon told me that for years he did not know the taste of liquors. Continuing in the direction of Waikiki, we come to the large premises of Hannah Holmes, or Mrs. Jones, as she was at one time the wife of the American consul. At this time the house was the most pretentious in the town, built of coral, with high basement and broad steps lead-

ing up to wide verandas; in the early times, a place of convivial hospitality. One day a native servant of Mrs. Holmes, who was herself a Hawaiian, came to the store where I was clerk and offered a single silver spoon for sale. The circumstances were so unusual that my employer, Mr. Ladd, sent me up to her house to see if she had authorized the sale, or whether the native had come improperly by it. Going to the house I met Mrs. Holmes with her son, afterwards Judge Robert Davis. Not being at that time familiar with the Hawaiian language, and supposing that Mrs. Holmes did not understand English, I told my story to her son, who spoke perfectly correct English. Rather to my embarrassment he turned to his mother, and said in as good English as I had used, "Mother, you have heard this young man's story, what about the spoon?" She replied in English, evidently understanding the language, having been three times married to Americans, "It is all right, I sent the spoon to be sold as I wanted a little money."

These premises were afterwards used as the Globe Hotel. Part of the grounds are now occupied by the Odd Fellows' building on Fort street. There was a singular little building at the corner of Fort and Hotel streets, which was almost an excrescence on the adjoining property and marred the line of the street. The owner was very averse to selling, and it remained for years an eyesore to all passers by.

Passing Fort street and beyond the corner now occupied by E. O. Hall & Son, Ltd., there was a long stretch of property occupied mostly by natives. *Alapai street had not yet been cut through, and the first house that I remember was that of Anton Silva, a Portuguese, an old resident, at the foot of Richard street, and at the junction of Merchant and King streets.

On the mauka Waikiki corner of King street and Fort were some native buildings which afterwards gave place to a wooden building erected for S. H. Williams for the disposition of his large stock of dry goods, in which store I was a clerk for some time, afterwards McIntyre's bakery. The next premises were the

* I am told that the street is now called Alakea street. I am under the impression it was originally as I have written and so named in honor of John Young's wife, Alapai, a member of the king's court.

large property, well walled in, of the high chiefs, Paki and Konia, parents of Mrs. Pauahi Bishop. There was a fine large straw house with wide veranda, ample grounds, and a long row of servant's houses. One of the beautiful ornaments of the place was a fine large tamarind tree,* planted the day of Mrs. Bishop's birth. Next adjoining was the estate of Piikoi who was ranked with the *hulumanus* of the King. They were the personal attendants of His Majesty, the King, and wore the regalia of the famous yellow feather capes on occasions of state functions, hence their name. From there out to Richards street there were no houses other than those occupied by natives.

Richards street, by the way, was not laid out as it now is, nor named until after the death of the Rev. William Richards for whom it was called.

We now come to the square occupied by the palace. This building was built of coral with a high basement and one story, high studded and sloping roof with a large lookout room on top. It was divided into a large hall through the centre, a large reception or throne room on the right, with two rooms on the left. It was mainly used for public purposes, the king preferring the quiet quarters of the cottages in the yard, where he lived according to his chosen Hawaiian style. Some very brilliant receptions were held there to which the public was generally invited with all the official and distinguished guests who happened in town. A little incident may not be out of place here. Having received an invitation to attend one of the receptions of King Kamehameha IV., a friend and myself entered the grounds at the mauka gate, intending to pass around and enter at the front of the building. As we were passing the bungalow a friendly voice, somewhat familiar, hailed us and asked us to come up on the veranda. We accepted the invitation and were welcomed by the king himself, who invited us to seats and cigars. While chatting upon social events the king, suddenly, looking at his watch, said hastily, "Excuse me, gentlemen, I am due in the throne room in five minutes," and disappeared within. Passing to the front entrance of the palace, up the broad steps, and across the

* A section of the trunk is now in the Bishop Museum.

wide veranda to the brilliantly lighted rooms, we found a large company gathered. In a short time the band announced the arrival of His Majesty and presentations began. These were made by the officers of the court, dressed in full uniform, and with great formality. When our turn came, my friend Mr. Bartow, and myself were escorted by two of the officers to the presence of the king. We were announced with much formality by the stereotyped expression, "Your Majesty, permit me to present to you Mr. Gilman." With a formal bow on the part of both, we passed on, as if it were the first time we had ever been in the royal presence, while really it was only a few minutes since we had been smoking together.

In earlier days, under the reign of Kamehameha III., an accommodating arrangement was made by which all of the missionary friends who desired were presented before the hour of nine o'clock, at which time the music struck up some lively tune, which was an indication that dancing was about to commence, and our good missionary friends understood the hint and retired.

A short distance from the palace was a two-story coral house, occupied by Kekauluohi and her husband Kanaina, who were the parents of Lunalilo, who afterwards came to the throne as William, the First. There was one very modest building in the palace grounds, of very plain construction, without a window; the only light entering was through a heavy door which was the only opening. This was the tomb of the royal family, kings and queens. It was in this secluded retreat that Dr. G. P. Judd, King Kamehameha III.'s prime minister, found the only safe and quiet place in which he could enter his records of the passing events of the troublous times during Lord George Paulet's reign. On the mauka borders of the palace property was the school building of the Young Chiefs' School, cared for and watched over by Mr. and Mrs. A. S. Cooke, formerly connected with the Mission.

The building was a one-story, plastered adobe building, surrounding an open court, with windows on the outside and the doors on the inside. It contained all the conveniences for house keeping, school room, and dormitory in the one enclosure. The school was organized for the purpose of educating properly the

children of the high chiefs, who presumably would come to occupy the places of their parents who were active at the times of the second and third Kamehamehas. The three oldest boys were the sons of Kinau and Gov. Kekuanoa. Although their children by birth, they had each of them been adopted, the youngest by Kamehameha III., the second, Lot, by the governor of Maui, the third and oldest, Moses, by the governor of Kauai. Among the other younger boys were, David, afterwards Kalakaua, and his brother James, who died young, William Lunailo, afterwards King, and two others, grandchildren of John Young. Among the girls, were Jane Loeau and Abigail Mahaha, from Kauai, Emma Rooke, who was afterwards the wife of Kamehameha IV., and Lydia Kamakaeha, the present ex-queen. Also among the members of the school was the Princess Victoria, younger sister of the first three boys alluded to. With her were her two guardians, John Ii and his wife Sarai. Mr. Ii was one of the strongest men of the nation, a man of common birth, who by his own mental ability and absolute integrity had raised himself with his wife to the important position of the guardianship of the young princess, to whom the people looked with fond admiration, hoping that she might come to hold the exalted position of her mother, who was one of the rulers of the land, as the daughter of the old conquering king. There was yet another scholar, Bernice Pauahi, the daughter of a long line of the most illustrious chiefs of the nation, and whose name and good deeds are linked imperishably, let us hope, with all that is high and noble in the educational interests of Hawaii. The Kamehameha Schools are her monument, linked with the beneficence of her husband, the Hon. Charles R. Bishop, whom she made her choice, declining the offer of Kamehameha IV., and later, also, that of his brother who succeeded him, and later the throne of the kingdom, offered her on the death bed of King Kamehameha V. They formed a very happy family of boys and girls, and appeared to enjoy their school life as much as any children in any boarding school on the mainland. They were under very careful and kind supervision by those who were their guardians and teachers, exhibited very favorable progress in their studies, and reflected much credit on their instructors.

An incident or two may be interesting connected with the three older boys. They were discussing together what they would do when they came into possession of the positions of their hereditary rank. The oldest, Moses, said, "When I am the governor of Kauai, I shall do so and so." Lot remarked. "When I am governor of Maui, having a larger population and more commerce, shall do so and so in the management of my affairs." Alexander, the youngest, and the heir apparent, said with a look of quiet assurance, "When you are governors, who will be king?" The other incident was connected with the seizure of the islands by Lord George Paulet. Their teacher, Mr. Cooke, going into the room where the boys were, on the evening of that eventful day, found that they had cut off all of their government buttons from their jackets. Upon being asked why they had done such a thing, they replied, "We have no further use for them, they have taken away our country, and we have no further use for our buttons," showing a love of country which has been a Hawaiian trait up to the present time.

One of the sights in the streets of a Saturday afternoon in the olden times, which attracted a good deal of attention were two cavalcades. They were the returning from the afternoon ride of the King and the members of his court and the members of the Royal School. The king's party mounted on spirited horses, the queen and the women usually dressed in bright colored silks or satins, with equally striking and vari-colored riding *paus*, with hats trimmed with flowers and large wreaths of the sweet smelling maile, and often with their horses' necks decked with the same fragrant vine, occuried the whole width of the street from curb to curb. They were all splendid riders, and strangers often gathered on the street as they swept gallantly by. Following them at some distance, came the young chiefs, the young ladies mounted on side saddles, in contrast to their elders, who rode the man's saddle. They too kept a well formed line as they swept by, and with these sights the day was brought to a close. Those who remember having seen this display will probably be able to recall it with much more vivid distinctness, than I have here told it.

The boundaries of the old town may be said to have been, on the makai side, the waters of the harbor; on the mauka side, Beretania street; on the Waikiki side, the barren and dusty plain, and on the Ewa side, the Nuuanu stream. There were few, if any, residences other than the straw houses of the natives mauka of Beretania street. Beginning at the Ewa side of this latter street, we come first to the large Kaumakapili church on the mauka side. It was constructed of adobe bricks of large size, and the walls were some twelve or fifteen feet high; these were plastered without and within. The heavy timbers of the roof were from the mountains, and were covered with pili grass, forming probably one of the largest expanses of thatched roof there was in the town, if not upon the islands. It was a wonderful monument of the devotion and hard labor of the natives under the lead of their pastor, the Rev. Lowell Smith. The house of Mr. Smith was on the opposite side of the street and a little ways from the road. This was also of adobe, plastered, and was a home from which went out a large influence. I can but bear a testimonial to the kindness of Mr. and Mrs. Smith to the stranger lad who had recently come to their shores, and for the hospitable home and welcome which they gave him in those early years. It is a matter of much gratification that their influence still exists through children and grandchildren to the benefit of not only the Hawaiians, to whom the parents came especially to serve, but also to those who have come from beyond the sea.

Passing along in the direction of Waikiki, we come to the crossing of Nuuanu street. Not a building of any kind other than native houses on either side of the street. On the makai side of the crossing of the two streets stood the residence of Dr. Rooke before alluded to. Across the street mauka there was an adobe building, two stories high with a veranda, which afterwards became well known as the Commercial Hotel, of which the elder Macfarlane was manager.

From here on to Fort street there was not a building other than those occupied by the natives. Fort street ended at Beretania street. Continuing on our way, we come to a two-story house, built of coral, which was occupied by a Mr. Jones, a car-

penter by trade, but at this time keeping a store. Still on our way, crossing a small lane, which ran makai, was the one-story, yet commodious, house of the Carter family. Captain and Mrs. J. O. Carter were known to all Honolulu by the kindness of their manner, the warmth of their friendship, and enjoyed the respect and affection of the community in general. They were both of them of fine figure and somewhat large proportions, and although Captain Carter was perhaps one of the heaviest-weight men in the town, he was one of the most graceful on the dancing floor there was in the place. In later years, after the death of her husband, Mrs. Carter consented to use her home for the accommodation of visitors. No more hospitable dwelling was in the place; no more kindly reception given to the wayfarer, and it was a home indeed to many a traveler, and especially to the captains of the ships which visited the port. Could they speak today they would respond with a most hearty aloha to the memory of the good and kind-hearted woman.

From here on the houses were but few and far between. On the makaai side of the road was the cottage occupied by Mr. and Mrs. William Paty, and beyond them the family of Mr. James Smith, an English gentleman, who, with his wife and family, had come up from the Society Islands and made their residence in Honolulu. In later years Mr. Smith was secretary of the celebrated Land Commission, and did most efficient and excellent service. Across the street were the premises occupied by the English Consul, who arrived about this time—General Miller, a hero of the Chilean war of independence and a man of very marked individuality, strong feelings, and somewhat imperative in manner. He manifested the general characteristics of one who felt himself embodying the dignity and power of Great Britain.

Back of these premises the land sloped to Punchbowl Hill. and this was the scene of a ludicrous incident. Two of the men about town had come to have very strong feelings and prejudices against each other, which was somewhat generally known. Some of their acquaintances fostered this ill feeling, and finally induced one of the parties to send a challenge to the other to fight a duel. The affair was supposed to be conducted with

great secrecy; there were, however, the principals, the seconds, the doctor and a few privileged friends. The combatants were placed in position, and at the word two pistols were discharged and there were two badly frightened men; but as the seconds had carefully provided that there should be no bullets in them, the powder and wad could not inflict any serious injury. The ludicrousness of the situation seemed to bring about good nature, and the town had a hearty laugh the next morning over the occurrence.

Later than the time of which I write, the Armstrong house was built, noticeable particularly from the fact that it was the first house built in Honolulu with chimney and fireplaces. From this house also have issued far-reaching influences which have told, and are still telling not only on the islands, but in the noble monumental institution founded by Gen. Samuel C. Armstrong.

Washington Place was not built until later. Captain Dominis was away most of the time on his voyages, and his good wife superintended not only the building, noble and spacious as it was, but also the beautifying of the grounds with many tropical plants, which still adorn and make it the fit and beautiful home of the ex-Queen Liliuokalani.

We have thus described to the best of our recollection, after these sixty years and more, the streets as they were in those early days.

I will now close this long account of the old town with my recollections of the old Kawaiahao church.* It was the old native framed thatched building. If I remember rightly, some hundred and twenty feet long by some thirty or forty feet wide, the sides of thatch having been mostly eaten off by the stray horses, donkeys and cattle which had free access thereto. This was not without its conveniences, for instead of having only one door, of ingress and egress, it was very easy to pass between the upright posts into any part of the inside. The floor was of earth, covered with lauhala mats. The settees were of native make and were rude indeed. The pulpit was one of the old historical ones

* The present church was first opened July 21, 1842—Ed.

sent out from New England and did good service. The preacher was the Rev. Richard Armstrong, father of our General Samuel C. Armstrong. He was a master of the idiomatic expressions of the Hawaiian language, and had acquired the intonations, inflections and gesticulations, the voice and manner, of the people that he served so well. The present church, built of coral blocks cut from the reef, on the outside of harbor, is a good contrast to the old church and the old times, which have given place to the "firmer foundations of intelligence, knowledge, and, let us hope, of lasting religion." With the history of the present church before your readers, I will not take the time and space to repeat it. May I say that it has some recollections that will forever associate it with those who, in former times, made it their resort. In and out of its doors have gone the glad marriage procession, and in and out of the same doors has the music of the funeral dirge sounded up its aisles. Hail and farewell.

Recollections of the old streets bring back vividly those who used them; the merchants whose trade was of the conservative description, who did not know the word "hustle," the quiet even tenor of whose way was seldom disturbed by panics or failure. In the spring and fall whaling seasons, business was active; "between seasons", Rip Van Winkle's sleep would not have been troubled.

The natives were in a large majority of those seen in the streets; the foreigners formed a small portion of the community, the Chinaman was a curiosity. The temporary influx of Jack on shore-liberty left a few dollars for horse hire. It was said that a native had trained a horse to allow Jack to ride out on the plains a way, then he unceremoniously landed on some sandy spot by the roadway when the horse would trot back to town and be hired out to another sailor to be served in the same manner.

The king and chiefs were not infrequently seen down town with a retinue of servants following. They were always dignified and courteous. When they bought it was generally by the quantity; the pay was not always prompt.

As I compare the old copper plate map of Honolulu engraved at Lahainaluna by some of the scholars, showing an almost bare plain with straw thatched houses here and there, a few cocoa-

nut trees growing scattered about, with scarce a frame house in the picture, and then turn to one of the recent panoramic photographs of King Brothers, showing a fine city with church spires, lofty buildings and stores that would do credit to the mainland. I marvel at the change until I recall the thought that our revered and honored self-sacrificing missionaries "builted better than they knew," and that in laying the foundations of religion, education, good government, others have built on what they began; progress and development have gone on apace and the islands will prove to be one of the most important outposts of our country.

"Oft in the stilly night,

* * * * *

Fond memory brings the light

Of other days around me."

WAIALUA REVISITED.

WAIALUA'S attraction and charm, Haleiwa, has in no sense modified the strong hold upon Honolulu residents or prominent visitors—be they tourists, investors or investigators—that was claimed for it at its inaugural as set forth in the "Annual" for 1900, as a glance through the hotel register readily testifies.

The writer's stay of several days during the past summer to test its recuperative powers proved in a satisfactory manner the desirability of so charming a resort so easy of access from the metropolis, for absolute rest and relaxation from business cares,



HALEIWA HOTEL.

which afforded a rest-cure for worn body and tired brain that few systems could resist responding to.

As strength returns under such conditions, aided by the balmy sea breeze, affording equable temperature, so that accustomed busy minds soon yearn for its wonted activity, the agricultural industry of the district, comprising sugar-cane growing, rice culture and taro planting, or the universal interest of the villagers in fishing, may claim profitable attention. Nor are the various points of local traditional history devoid of interest, the intense-ness of which may be said to be measurable only by one's capacity in seeking such knowledge.

Among the attractions of the hotel proper—which is well set forth in the "Annual" already referred to—it was our opportunity in this recent visit to include a trip to the hunter's lodge, or mountain house, connected therewith, some five miles distant to the eastward, on the hill slopes toward Wahiawa. The road is a gradual rise all the way, passing through stretches of cane fields and grazing land. Unfortunately, insects are making damaging inroads upon the log-cabin structure to soon affect its protecting qualities; but the view at its location, of wild forest and fern glens, or gulches, to the north, east and south, is fascinating by contrast with the almost treeless slope up to this point, and the air is filled with the twittering songs of the skylark, introduced from New Zealand and liberated near this locality some thirty years ago. The striking effect to vision and mind is one not likely to be soon effaced,

Adjacent to the Hotel Haleiwa, but hid away behind a grove of Pride of India trees (*Melia azedarach*), fragrant at the time of our visit from the delicate odor of its profuse lilac flowers, is the old Emerson mission homestead, now being demolished, showing quaint features in its structure in pioneer days. Near the old house is the never-failing spring, Kawaipuolo,¹ of le-

(1) Kawaipuolo spring takes its name, according to tradition, from its sudden disappearance, at one time, and after long search and enquiry therefor, it was discovered by the *kilo* (seer) at Makaula, near Kaena point, to be on the hill top now of the same name, Kawaipulo, some distance off on the easterly bank of the Anahulu, whither it had been conveyed in one night by the Menehunes (the Hawaiian Brownies), in bundles of ti and taro leaves; hence the name Kawaipuolo—the bundled water.

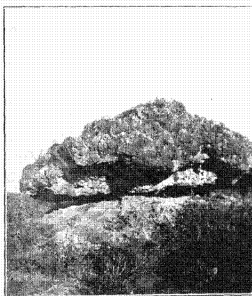
gendary fame, which furnishes the purest of water to the hotel. This spring and its tributaries interested us, with its network of masonry walls to doubtless conserve the same, but which now are to be ignored, since work is in progress to enlarge its area so that power may be had therefrom to run the pumping and electric light plant for the hotel located nearby and operated hitherto by steam. Throughout the premises are mango, mulberry, fig and other trees, which tell of the forethought of someone in days long past.

Not far distant from this point, but across the Anahulu stream, stand the ruins of Waialua's Female Seminary, prominent in this line of missionary work under the Gulicks and the late Mary Green, and the original "Haleiwa" of this place, which name the hotel has appropriately adopted.

Naturally handy to the mission homestead, but on the main roadway, is the rebuilt Protestant native church, adjoining the cemetery wherein rests the remains of those pioneer workers, Rev. J. S. and Mrs. U. S. N. Emerson.

One of the lions of the village affording some study is a stone of peculiar formation, in which the natives of the district maintain not a little traditional interest. It is located near the seashore, not far distant from the railroad station, but of late entirely hidden from sight among the tangle-growth of lantana and kolu bushes.

Hawaiians know it as "pohaku lanai," and is said by them to have floated ashore "from Kahiki," that vague foreign country of their ancient mele's. It is a balancing rock on a somewhat broader base, of limestone formation, with projecting top—as shown in the illustration—so as to afford material shelter in its shelving structure; but whether this shape is the natural result of the



erosion of ages, or of surf wearing, of which this may be evidence of a difference in shore line and elevation at some remote period, or the result of man's rude chizeling for a resting place, are questions of interest for the geologist, for it stands alone; is different in character from the rocks that line the coast, and unlike anything for miles around.

A visit to the mill building and over the extensive cane fields of the Waialua Agricultural Company is an education in itself. At the mill and boiling house, machinery of the latest designs and labor-saving devices, having a capacity of 125 tons of sugar per diem, are run night and day during the grinding season, with a force of hands far less than like concerns of not one-tenth its capacity required twenty years ago. The area of sugar cane under cultivation the early part of July last, 1903, was 6,000 acres, and extends from the low plains of Mokuleia on the north to the hill slopes toward Waimea on the east, and running back to an elevation of 350 feet. For the irrigation of this great spread of cane, there have been established no less than eight artesian pumping plants, having a combined capacity of 68,000,000 gallons each twenty-four hours, and in addition thereto, dams and reservoirs are constructed and are in progress of construction, with ditches to convey stored mountain waters that will bring under cultivation additional lands up to the 600-foot level, and do away with, or materially lessen, the pumping expense of the plantation, which is no small item, even though largely reduced by the recent change to fuel oil.

It is a matter of serious comment by many visitors, and admitted by residents themselves, at the shiftless aspect of the premises of most of the natives of the district. Except in a few instances there cottages are uncared for, and the grounds unkempt and left to the overgrowth of weeds or the inroad of animals; the occupants—or numbers of them—meanwhile busy themselves in their fashion at fishing when fish come in sight but, unlike the Japanese fishermen, they do not go out all night nor far from shore in search of them. Like conditions of premises exist in those occupied by the Chinese and Japanese as elsewhere throughout the islands, but being rented property of uncertain tenancy, with such a class it is to be expected. To some

extent this tells of a past period of better conditions by a larger populace with varied industries and commendable ambition.

Manager Iaukea has endeavored to instill into the hotel neighbors a spirit of pride in their premises, or lease the same to those who would improve them, but so far to little purpose. One item of public spirit entered upon to be commended is the setting out of shade trees by the roadside that will in time add beauty to the village and give comfort to weary pedestrians. If this is the act of the Road Board of the district, it is worthy of emulation in many other districts of the islands.

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TRADITIONAL ACCOUNT OF THE ANCIENT HAWAIIAN PROPHECY

“The Land is given to the Sea.”

Translated from Moke Mann's version, claimed to be from the collection of King Kalakaua.

IT IS stated in the history of Kaopulupulu that he was famed among the kahunas of the Island of Oahu for his power and wisdom in the exercise of his profession, and was known throughout the land as a leader among the priests. His place of residence was at Waimea, between Koolauloa and Waialua, Oahu, where he married and there was born to him a son whom he named Kahulupue, and whom he instructed during his youth in all priestly vocations.

In after years when Kumahana, brother of Kahahana of Maui, became the governing chief (alii aimoku) of Oahu, Kahulupue was chosen by him as his priest. This chief did evil unto his subjects, seizing their property and beheading and maiming many with the leiomano (shark's tooth weapon) and pahoa (dagger) without provocation, so that he became a reproach to his people. From such treatment Kahulupue endeavored to dissuade him, assuring him that such a course would fail to win their support and obedience. The supplying of food and fish, with covering for the body, and malos, would insure their affectionate regard. The day of the people was

near, for the time of battle was approaching when he would meet the enemy. But these counsels of Kahulupue were disregarded, so he returned to his father at Waimea.

Not long thereafter this chief Kumahana was cast out and rejected by the lesser chiefs and people and under cover of night he escaped by canoe to Molokai, where he was ignored and became lost to further history in consequence of wrong doings.

When Kahekili, king of Maui, heard of the stealthy flight of the governing chief of Oahu, he placed the young prince Kahahana, his foster son, as ruler over Oahu in the place of his deposed relative Kumahana. This occurred about the year 1773, and Kahahana took with him as his intimate friend and companion one Alapai.

Kahahana chose as his place of residence the shade of the kou and coconut trees of Ulukou, Waikiki, where also gathered together the chiefs of the island to discuss and consider questions of state.

The new ruler being of fine and stalwart form and handsome appearance, the chiefs and common people maintained that his fame in this respect induced a celebrated chiefess of Kauai, named Kekuapoi, to voyage hither. Her history, it is said, showed that she alone excelled in maiden charm and beauty; handsome beyond all other chiefesses from Hawaii to Kauai, as "the third brightness of the sun" (he ekolu.ula o ka la.) In consequence, Kahahana took her as his wife, she being own sister to Kekuamanoha.

At this time the thought occurred to the king to enquire through the chiefs of Oahu of the whereabouts of Kaopulupulu, the priest, whom he had heard of through Kahekili, king of Maui. In reply to this enquiry of Kahahana, the chiefs told him that his place of residence was at Waimea, whereupon a messenger was sent to bid him come up by order of the king. When the messenger reached Kaopulupulu he delivered the royal order. Upon the priest hearing this word of the king he assented thereto with this reply to the messenger: "You return first and tell him that on the morning after the four-

teenth night of the moon (po o akua), I will reach the place of the king."

At the end of the conference the messenger returned and stood before Kahahana and revealed the words of Kaopulupulu; and the king waited for the time of his arrival.

It is true, Kaopulupulu made careful preparation for his future. Toward the time of his departure he was engaged in considering the good or evil of his approaching journey by the casting of lots, according to the rites of his profession. He thereby foresaw the purpose of the king in summoning him to dwell at court. He therefore admonished his own son to attend to all the rites and duties of the priesthood as he had been taught, and to care for his mother and relatives.

At early dawn Kaopulupulu arose and partook of food till satisfied, after which he prepared himself for the journey before him. As he gave his farewell greetings to his household he seized his bundle and, taking a coconut fan in his hand, he set out toward Punanue, where was a temple (heiau) for priests only, called Kahokuwelowelo. This was crown land at Waialua in ancient times. Entering the temple he prayed for success in his journey, after which he proceeded along the plains of Lauhulu till reaching the Anahulu stream, thence by Kemoo to Kukaniloko, under the shelter of whose prominent rock the chiefesses of Oahu were wont to choose for their place of confinement.

Leaving this place he came to Kalakoa where Kekiopilo the prophet priest lived and died, and the scene of his vision at high noon when he prophesied of the coming of foreigners with a strange language. Here he turned in and rested with some of the people, and eat food with them, after which he journeyed on by way of Waipio by the ancient path of that time till he passed Ewa, reaching Kapukaki.

The sun was well up when he reached the water of Lapakea, so he hastened his steps in ascending Kauwalua, at Moanalua, and paused not till he came to the mouth of the Apuakehau stream at Waikiki. Proceeding along the sand at this place he was discerned by the retainers of the

king and greeted with the shout, "Here comes the priest Kaopulupulu."

When the king heard this he was exceedingly pleased (pi-hoihoi loa) at the time, and on the priest's meeting with king Kahahana he welcomed Kaopulupulu with loud rejoicing.

Without delay the king set apart a house wherein to meet and discuss with the priest those things he had in mind, and in the consideration of questions from first to last Kaopulupulu replied with great wisdom in accordance with his knowledge of his profession. At this time of their conference he sat within the doorway of the house and the sun was near its setting. As he turned to observe this he gazed out into the sky and noticing the gathering short clouds (ao poko) in the heavens he exclaimed:

"O Heaven, the road is broad for the king, it is full of chiefs and people; narrow is my path, that of the kahuna; you will not be able to find it, O King. Even now the short clouds reveal to me the manner of your reign; it will not be many days. Should you heed my words, O King, you will live to gray hair. But you will be the king to slay me and my child."

At these words of the priest the king meditated seriously for some time, then spoke up as follows: "Why should my days be short, and that your death should be by me, the king?"

Kaopulupulu replied: "O King, let us look into the future. Should you die, O King, the lands will be desolate, but for me, the kahuna, the name will live on from one generation to that of another; but my death will be before thine, and when I am up on the heaven-feared altar then my words will gnaw thee, O King, and the rains and the sun will bear witness."

These courageous words of Kaopulupulu uttered in the presence of Kahahana without fear, and regardless of the dignity and majesty of the king, were uttered because of the certainty that the time would come when his words would be carried into effect. The king remained quiet without saying a word, keeping his thoughts to himself.

After this conference the king took Kaopulupulu to be his priest, and in course of time he became also an intimate com-

panion, in constant attendance upon the king, and counselled him in the care of his subjects, old and young, in all that pertained to their welfare. The king regarded his words and in their circuit of the island together they found the people contented and holding their ruler in high esteem at that time. But at the end of three years the king attempted some wrong to certain of his subjects like unto that of his deposed predecessor. The priest remonstrated with him continually, but he would not regard his counsel; therefore, Kaopulupulu left King Kahahana and returned to his land at Waimea and at once tattooed his knees. This was done as a sign that the king had turned a deaf ear to his admonitions.

When several days had passed, rumors among certain people of Waialua reached him that he was to be summoned to appear before the king in consequence of this act, which had greatly angered his august lord. Kahahana had gone to reside at Waianae, and from there shortly afterwards he sent messengers to fetch Kaopulupulu and his son Kahulupue from Waimea.

In the early morning of the day of the messenger's arrival, a rainbow stood directly in the doorway of Kaopulupulu's house, and he asked of his god its meaning, but his prayer was broken (*ua haki ka pule*). This bode him ill; therefore he called to his son to stand in prayer, but the result was the same. Then he said, "This augurs of the day of death; see! the rising up of a man in the pass of Hapuu, putting on his kapa with its knot fastening on the left side of the neck, which means that he is bringing a death message."

Shortly after the priest had ended these words a man was indeed approaching along the mountain pass, with his kapa as indicated, and he came and stood before the door of their house and delivered the order of the king for them to go to Waianae, both he and his son.

The priest replied: "Return you first; we will follow later," and the messenger obeyed. When he had departed Kaopulupulu recalled to his son the words he had spoken before the advent of the messenger, and said: "O, where are you, my child? Go clothe the body; put on the malo; eat of the food till satisfied, and

we will go as commanded by the king; but this journey will result in placing us on the altar (*kau i ka lele*). Fear not death. An idler, if beaten to death, his name does not pass on to distinction."

At the end of these words of his father, Kahulupue wept for love of his relatives, though his father bid him to weep not for his family, because he, Kaopulupulu, saw the end that would befall the king, Kahahana, and his court of chiefs and retainers. Even at this time the voices of distress are heard among his family and their tears flow, but Kaopulupulu looks on unmoved by their cries.

He then arose and, with his son, gave farewell greetings to their household, and set forth. In journeying they passed through Waialua, resting in the house of a kamaaina at Kawaihapai. In passing the night at this place Kahulupue slept not, but went out to examine the fishing canoes of that neighborhood. Finding a large one suitable for a voyage, he returned and awoke his father, that they might flee together that night to Kauai and dwell on the knoll of Kalalea. But Kaopulupulu declined the idea of flight. In the morning, ascending a hill, they turned and looked back over the sea-spray of Waialua to the swimming hala's of Kahuku beyond. Love for the place of his birth so overcame Kaopulupulu for a time that his tears flowed for that he should see it no more.

Then they proceeded on their way till, passing Kaena point, they reached the heiau (temple) of Puaakanoe. At this sacred boundary Kaopulupulu said to his son, "Let us swim in the sea and touch along the coast to Makua." At one of their resting places, journeying thus, he said with direct truthfulness, as his words proved: "Where are you, my son? For this drenching of the high priests by the sea, seized will be the sacred lands (*mookapu*) from Waianae to Kualoa by the chief from the east."

As they were talking they beheld the king's men approaching along the sand of Makua, and shortly afterward came before them and seized and tied their hands behind their backs and took them to the place of King Kahahana at Puukea, Waianae, and put them, father and son, in a new grass hut unfinished of its ridge thatch, and tied them the one to the end post (*pouhana*) and the other to the corner post (*poumanu*) of the house.

At the time of the imprisonment of the priest and his son in this new house Kaopulupulu spake aloud, without fear of dire consequences, so that the king and all his men heard him, as follows:

"Here I am with my son in this new unfinished house; so will be unfinished the reign of the king that slays us." At this saying Kahahana, the king, was very angry.

Throughout that day and the night following, till the sun was high with warmth, the king was directing his soldiers to seize Kahulupue first and put him to death. Obeying the orders of the king, they took Kahulupue just outside of the house and stabbed at his eyes with laumake spears and stoned at him with stones before the eyes of his father, with merciless cruelty.

These things, though done by the soldiers, were dodged by Kahulupue, and the priest, seeing the king had no thought of regard for his child, spoke up with priestly authority as follows: "Be strong of breath, my son, till the body touch the water, for the land indeed is the sea's."

When Kahulupue heard the voice of his father telling him to flee to the sea, he turned toward the shore in obedience to these last words to him, because of his death by the soldiers of the king. As he ran, he was struck in the back by a spear, but he persevered and leaped into the sea at Malae and was drowned, his blood discoloring the water. His dead body was taken and placed up in the temple at Puehuehu. After the kapu days therefor the king, with his chiefs and soldiers, moved to Puuloa, Ewa, bringing with them the priest Kaopulupulu, and after some days he was brought before the king by the soldiers, and without groans for his injuries he was slain in the king's presence. But he spoke fearlessly of the vengeance that would fall upon the king in consequence of his death, and during their murderous attack upon him proclaimed with his dying breath: "You, O King, that killeth me here at Puuloa, the time is near when a direct death will be yours. Above here in this land, and the spot where my lifeless body will be borne and placed high on the altar for my flesh to decay and slip to the earth, shall be the burial place of chiefs and people hereafter, and it shall be called 'the royal sand of the mistaken;' there will you be placed in the temple." At the end of these words of Kaopulupulu his spirit took flight, and his body

was left for mockery and abuse, as had been that of his son in the sea of Malae, at Waianae.

After awhile the body of the priest was placed on a double canoe and brought to Waikiki and placed high in the coconut trees at Kukaeunahi the place of the temple, for several ten day periods (*he mau anahulu*) without decomposition and falling off of the flesh to the sands of Waikiki.

When King Kahekili of Maui heard of the death of the priest Kaopulupulu by Kahahana, he sent some of his men hither by canoe, who landed at Waimanalo, Koolau, where, as spies, they learned from the people respecting Kaopulupulu and his death with that of his son; therefore they returned and told the king the truth of these reports, at which the affection of Kahekili welled up for the death of the priest, and he condemned the king he had established. Coming with an army from Maui, he landed at Waikiki without meeting Kahahana, and took back the government of Oahu under his own kingship. The chiefs and people of Oahu all joined under Kahekili, for Kahahana had been a chief of wrong doing.

This was the first sea of Kaopulupulu in accordance with his prophetic utterance to his son, "This land is the sea's."

Upon the arrival here at Oahu of Kahekili, Kahahana fled, with his wife, Kekuapoi, and friend Alapai, and hid in the shrubbery of the hills. They went to Aliomanu, Moanalua, to a place called Kinimakalehua; then moved along to Keanapuaa and Kepookala, at the lochs of Puuloa, and from there to upper Waipio; thence to Wahiawa, Halemano, and on to Lihue; thence they came to Poohilo, at Honouliuli, where they first showed themselves to the people and submitted themselves to their care.

While they were living there, report thereof was made to Kahekili, the king, who thereupon sent Kekuamanoha, elder brother of Kekuapoi, the wife of Kahahana, with men in double canoes from Waikiki, landing first at Kupahu, Hanapouli, Waipio, and had instructions to capture and put to death Kahahana, as also his friend Alapai, but to save alive Kekuapoi.

When the canoes touched at Hanapouli, they proceeded thence to Waikele and Hoaeae, and from there to Poohilo, Honouliuli, where they met with Kahahana and party in conference. At the

close of the day Kekuamanoha sought by enticing words to induce his brother-in-law to go up with him and see the father king and be assured of no death condemnation, and by skilled flattery he induced Kahahana to consent to his proposition, whereupon preparation was made for the return. On the following morning, coming along and reaching the plains of Hoaeae, they fell upon and slew Kahahana and Alapai there, and bore their lifeless bodies to Halaulani, Waipio, where they were placed in the canoes and brought up to Waikiki and placed up in the coconut trees by King Kahekili and his priests from Maui, as Kaopulupulu had been. Thus was fulfilled the famous saying of the Oahu priest in all its truthfulness.

According to the writings of S. M. Kamakau and David Malo, recognized authorities, the thought of Kaopulupulu as expressed to his son Kahulupue, "This land is the sea's," was in keeping with the famous prophetic vision of Kekiopilo that "the foreigners possess the land," as the people of Hawaii now realize. The weighty thought of this narration and the application of the saying of Kaopulupulu to this time of enlightenment is frequent with certain leaders of thought among the people, as shown in their papers.

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COMPLETE LIST OF THE BIRDS OF THE HAWAIIAN POSSESSIONS, WITH NOTES ON THEIR HABITS.

(Concluded from Last Number.)

Prepared for the Hawaiian Annual by H. W. Henshaw.

ANATIDÆ. GOOSE, DUCK AND SWAN FAMILY.

Bernicla sandvicensis (Vigors). Nene. Hawaiian Goose.

The nene is now found chiefly, if not wholly, upon the island of Hawaii, although it is said to have nested in past times in the crater of Haleakala on the island of Maui and, occasionally, to have been seen on the islands of Kauai and Niihau. At the pres-

ent time, however, there is no reason to believe that the nene is found upon Maui, inquiry in 1891 failing to disclose that it has been seen there for several years. Its occurrence upon Kauai and Niihau was probably in the nature of an accident, if indeed it was not mistaken for one of the species of American geese which are now known to visit the islands not rarely.

Upon the island of Hawaii the haunts of the nene, for the greater part of the year, are the uplands from about 5,000 feet upwards. At or about the above elevation the range of this goose is quite extensive, and it is found from the district of Kona to the northeast flanks of Mauna Kea. It would be an easy matter to introduce the nene from Hawaii into the other islands, especially Maui, and no doubt the bird would thrive, if properly protected.

The region it affects is open, and, in general, as barren as can well be imagined, consisting for the most part of lava flows, naked except for very scanty growth of ferns, ohelos, puakeawe, and a few other lowly shrubs. Except for the temporary rain-water pools this region is entirely devoid of water, and it is doubtful if this goose drinks, or indeed cares to drink, any other fluid than the dew it may find on the grasses and berries it eats. The bird has lived so long amid its novel surroundings that it has become entirely weaned from the habits of its kind, and never enters water, but is in all essential respects a land goose.

The food of the nene consists of pualele (*Sonchus oleraceus*), tender grasses and several kinds of berries, especially the ohelo (*Vaccinium reticulatum*), puakeawe (*Cyathores tameiameiae*), and the strawberry (*Fragaria chilensis*). In summer when the latter abound in the upper districts, the geese become very fat, and are then fine eating. The young birds, however, and the old ones too for that matter, are said to be more fond of the milky juiced weed called by the natives pualele than anything else, and to live largely upon it from their adolescent stage onwards.

When captured young the nene are rather difficult to rear, but if they live readily domesticated, and eventually become exceedingly tame, following their owner about and permitting themselves to be freely handled. A pair kept for several years by Mr. Walton of the Pahala plantation, Kau, were very playful and, when invited to a romp, would chase a lad round the enclosure

with every manifestation of delight. In some districts I am told they breed rather freely in confinement, but such it not always the case. Numbers of these geese have been taken to England from time to time, where they have been successfully kept for years and, in some instances as I am assured have reared young.

That the mongoose, to some extent at least, have invaded the upland homes of this goose there is only too much reason to believe, and it remains to be seen if the bird can long maintain itself against the attacks of this fierce marauder. The barren flats near the sea where this goose nest would seem to be entirely unsuited to the mongoose, yet in riding over these flats looking for geese I saw mongoose, which doubtless are ever ready to plunder an unprotected nest or to seize an imprudent young one. A goose, however, with its nest to defend, or its young to protect, is no contemptible foe, and it is to be hoped that this fine bird may be able to hold its own in the contest.

The mongoose is not the only, nor the chief, foe the nene has to fear, since the districts frequented by the bird most of the year, though remote and inaccessible, are now often visited by sportsmen, and the nene is rapidly diminishing in numbers. The time will inevitably come, and that soon, when this goose will need protection from sportsmen to save it from its otherwise inevitable fate of extermination.

In this connection attention may well be called to the fact that, as the present law stands, the open months (from September 15 to February 1), when the killing of this goose is permissible, are almost precisely the ones in which it rears its young. The law, doubtless through a misapprehension of the facts, protects the bird when it least needs protection, and exposes it to slaughter when it is laying its eggs and leading about its young.

The breeding season of the nene is a very protracted one, as is that of all Hawaiian birds, and Mr. Eben Low informs us that some pairs begin to lay the latter part of August, and the nesting season is not all over and the young able to shift for themselves till April or even later. Thus the months that by law are now open ones should be closed, and the close time extended somewhat.

It has been stated and seems to be the general impression that the nene rears its young in the uplands where it is found in summer, but such is not the fact. The greater number, probably all, leave the upper grounds beginning early in the fall, and resort to lower altitudes, from about 1,200 feet downwards. There are barren lava flats near the sea in Puna, Kona, Kau and Kohala, rarely indeed visited by man, and it is to these deserted solitudes that the nene resorts at the beginning of the love season.

The cause of the desertion of the uplands by the geese for the low-lying lava flats near the sea is doubtless the failure of the food supply in the former, at least of such as is adapted to the wants of the young. At high altitudes there is but a scanty crop of berries in winter, and most of the pualele dies; whereas near the sea there is an abundance of this plant and of freshly sprouted grasses during the winter and spring months.

Mr. Eben Low informs me that the nene is much attached to its old nesting ground, and is wont to return season after season to the same locality to deposit its eggs. This fact is well known to the natives who, when once they find a nest, never fail to return the following year to secure the young. It is when leading about their young that the old birds undergo the moult, and, when deprived of their wing feathers and unable to fly, they, and the young, are easily run down by the fleet-footed natives and secured.

Mr. Palmer Wood, of Kohala, who has several pairs of nene in confinement, tells me that they lay from three to six eggs, the former being doubtless the more usual number. The nest of a wild bird which he found in a lava flat was placed among low bushes, and was made by scraping the surrounding dirt into a hollow pile. The eggs are laid directly upon the earth, but finally are surrounded with down plucked from the breast of the old birds, after the usual manner of the *Anatidæ*. When the bird (tame or wild) temporarily leaves the nest, the down is carefully disposed over the eggs, probably for the double purpose of hiding them and keeping them warm.

Mr. Sam Kauhane also has found the nest of the wild bird on the lava below Kahuku, Kau. The eggs, in this instance four in

number, were on the bare ground, but were encircled by a slight barrier of bits of brush.

Mr. George C. Hewitt, of Naalehu, has kindly presented the writer with two eggs, laid by one of his geese in confinement, and a third was presented by Mr. C. M. Walton of Pahala. These eggs are of a delicate creamy white (brown stained when long set on) and measure as follows: 3.37×2.42 ; 3.32×2.45 ; 3.40×2.18 .

Description.—Adult male. Hind neck, head, cheeks, chin and throat black, as also a narrow ring around lower throat; rest of neck and sides of head brownish buff; feathers on throat and sides of neck narrow and acute and so arranged as to disclose their black bases; above deep hoary brown, feathers margined broadly with brownish white; rump and tail dusky black, as also the primaries; beneath grayish brown; feathers on sides and flanks with gray tips; lower belly and under tail-coverts white; bill and feet black. Length 23 to 28 inches, the female the smaller.

The appearance of this handsome goose is much enhanced by the arrangement of the neck feathers. These are somewhat stiff and lanceolate, and are so disposed in oblique and more or less parallel rows as to disclose the black bases in the intervening furrows, thus producing a marked and novel effect.

Branta nigricans (Lawrence). Black Brant.

"Palmer obtained a specimen of this bird from Brother Matthias, who got it at Kahului, on the island of Maui, in 1891." (Rothschild Avifauna of Laysan, pt. III, p. 279. 1900.)

Description.—Adult. Head and neck black; above dark brown; neck with broad white collar, interrupted behind; below dark sooty slate; crissum white; bill and feet black. Length from 22 to 23 inches.

Branta canadensis minima (Ridgway). Cackling Goose.

According to Rothschild Mr. Palmer shot a specimen of this goose, the only one known to have found its way to the islands, near Waimea, Kauai, March 16, 1891.

During the winter months of 1900-1901 two separate flocks of Canada geese made their appearance in Hilo bay, and remained for a considerable period. In all there were upwards of fifteen

reported. A number, possibly all, were killed at one time and another, but as I was unable to obtain a sight of a single individual I am unable to state which form of the Canada goose was represented by these birds.

The above instances are not the only ones I have heard of, and I believe it is not a rare thing for geese to make their way to the islands in the fall and to winter here. Sooner or later, no doubt, all of the geese from the northwest coast will be recorded as casual winter visitors.

Description.—Adult. Head and neck black; a white patch on cheek; lower neck encircled by white collar; upper parts brownish, feathers with lighter tips; lower parts deep grayish brown; anal region white; bill and feet black. Length from 22 to 25 inches.

Chen hyperborea (Pall.). Lesser Snow Goose.

A single specimen of this goose was obtained on the island of Maui by Brother Matthias as recorded by Rothschild.

Description.—Adult. Uniform white; head usually stained with rusty; primaries black bill and feet purplish red. Length from 23 to 28 inches.

Young birds have grayish head, neck, and upper parts; rump, upper tail-coverts, tail and lower parts white.

Anser albifrons gambeli (Hartlaub). American White-fronted Goose.

A male of this goose was shot by Palmer at Honokohau, island of Hawaii, Dec. 18, 1891, as recorded by Rothschild.

Description.—Adult. Fore part of head to about half way across lore and forehead white; rest of head grayish brown, as also neck and upper parts; below grayish white, blotched with black; crissum and tail-coverts white; bill and feet yellowish or orange. Length 27 to 30 inches.

Dafila acuta (Linn.). *Koloa mapu*. Pin-tail Duck.

Well known to sportsmen as a winter visitor to the islands, where, some seasons, it seems to be rather numerous.

Description.—Adult male. Head and upper neck hair-brown, glossed with green and purple; sides of head with white stripe; dorsal line of neck black; lower neck and under parts white; back and sides vermicu-

lated with black; speculum greenish purple; tertials and scapulars silvery and black; tail cuneate with much projecting middle feathers. Length about 28 inches.

Female. Above grayish dusky with bars and streaks of yellowish brown; lower parts chiefly white; flanks and under tail-coverts streaked with dusky. Smaller.

Spatula clypeata (Linn.). Koloa moha. Shoveller.

Well known to the island sportsmen as the "North-west duck." It winters in large numbers in the Hawaiian Islands, especially upon Oahu and Kauai, and occurs upon the island of Hawaii in flocks of considerable size. Capt. Wm. Matson informs me that when about 300 miles off the port of Hilo, October 31, 1900, he observed a flock of about fifty ducks, presumably of this species. They seemed to be lost, and followed the vessel for two days, practically into port. They kept lighting in the water near by, and when the vessel forged ahead a few miles they overtook her, circled around, and again alighted only to repeat the performance. The flock seemed to have lost their bearings and to be following the vessel as a guide.

Description.—Adult male. Head and neck green; breast and outer scapulars white; rest of under parts chestnut; crissum dark bluish green, bordered anteriorly by white; bill black and twice as wide at tip as at base; feet orange-red. Length about 20 inches. Female duller.

Anas americana (Gmelin). Baldpate.

A single juvenile specimen of this duck was taken by Professor Schauinsland on Laysan, October 15, 1896. So far as I am aware this duck has not yet been found in the main group.

Description.—Adult male. Head and upper neck white, speckled with dusky; sides of head with brown patch of metallic green; sides and flanks vinaceous; back and scapulars grayish white. Female is duller. Length from 18 to 22 inches.

Anas boschas Linn. Mallard.

Professor Schauinsland obtained a single adult male of this species on the island of Laysan, July 11, 1895. This is the first and, so far as I know, the only record for the islands.

Description.—Adult male. Head and upper neck glossy green; neck encircled with a white ring; breast purplish chestnut; greater wing-coverts tipped with white and black; speculum violet with border of black; bill greenish yellow; feet orange red. Female with the wing as in the male; elsewhere mixed dusky and ochraceous. Length about 24 inches more or less.

Anas carolinensis Gmelin. Green-winged Teal.

This is another of the American ducks of which Prof. Schauinsland obtained a single specimen upon Laysan Island. This bird was obtained October 27, 1896.

Description.—Adult male. Head and upper neck chestnut with broad patch of green behind eye, bordered by white; a broad white bar across side of breast; upper hind neck with tuft of bluish black; chin and upper throat black; lower neck, upper back, scapulars, sides and flanks mixed black and white; speculum metallic green.

Adult female. Above grayish dusky with buffy edgings and bars; head, neck and lower parts brownish white; head and neck streaked with dusky; sides and flanks with dusky spots; belly usually speckled with white. Length from 13 to 15 inches.

Anas wyvilliana, Schlater. Koloa.

The little native duck, or koloa as the natives call it, is widely spread over the archipelago, no island being without it. Upon the island of Hawaii the koloa used to be numerous, being by no means uncommon about Hilo, the type locality, as recently as five years ago. But as the mongoose has increased in numbers, the koloa has diminished, and it is no longer found immediately about Hilo at all, while it is becoming comparatively scarce in other parts of the island. I believe that generally speaking the bird is becoming less numerous upon all the islands, both because of the attacks of the mongoose and because it is more sought after by sportsmen than formerly.

The old birds of course are rarely killed by the mongoose, which never pursues its prey into the water, except when setting. As the koloa, like most other ducks, makes its nest upon the land the setting birds and their eggs must frequently fall easy prey to the keen nosed and fearless mongoose.

The koloa is a fresh water duck, although by no means entirely absent from the coast, and it loves to follow the windings of the little mountain streams as they thread their way through the tangled woods, here and there forming little pools of still water. It is in such localities, rather than near the coast, that this duck usually nests.

In localities where unharrassed the koloa is tame and unsuspicious, and its destruction is easily compassed by the sportsman.

In October of 1899 a pair of these ducks was shot at Kaalualu on the coast of Kau, Hawaii, by Mr. Bertelmann and presented to the writer. Upon dissection the stomachs of both birds were found to be crammed with two species of small fresh and brackish water shells. The larger of the two proves to be the *Melania newcombi* Lea which abounds in all the islands of the group. The smaller has been identified by Mr. C. F. Ancey as the *Hydrobia porrectamigh*.

Description.—Adult. Top of head blackish; neck, upper back and interscapulars brown with rufous brown bands; lower back, rump and upper tail-coverts brownish black; speculum deep purple, bordered with white; sides of head, neck and throat brown mottled; breast rufous brown with U-shaped blackish markings; abdomen brownish buff; sides of body rufous heavily marked with deep brown. Length about 20 inches.

Anas laysanensis, Rothschild. Laysan Teal.

This duck, which is even smaller than the preceding species, appears to be limited to the island of Laysan, where it is fairly numerous in the scrub. Though often seen on the beach, Palmer never observed this duck in the water, and it appears to have become as thoroughly habituated to a strictly land life as the nene, or Hawaiian goose.

This duck is a near relative of the preceding species, and evidently both are derived from the same stock.

Description.—Adult. Above deep blackish brown, darkest on rump and upper tail-coverts, with irregular U-shaped markings of light rusty-brown; crown black; an irregular ring of white about eye; speculum deep green, tipped with white; below pale rusty brown, irregularly barred and spotted. Length about 15 to 17 inches. Female smaller.

Merganser serrator (Linn.). Red-breasted Merganser.

This duck was recorded by me in the "Auk" for April, 1893, as a "casual and possibly a rather regular winter visitor" to the islands on the strength of two specimens shot near Hilo. No others have been seen since and, were it not for the fact that the bird seemed to be familiar to the natives to whom I showed the specimen I shot, I should be inclined to look upon its occurrence here as purely accidental. Mr. Bryan in his Key notes its occurrence on Oahu.

Description.—Adult. Head greenish black and crested; above pied black and white; rump, upper tail-coverts and tail ash gray; neck and sides of chest light cinnamon, streaked with black; lower parts white or salmon colored. Length 20 to 25 inches.

Charitonetta albeola (Stejneger). Buffle-head.

Mr. Bryan records a single specimen as being in the cabinet of Saint Louis College, Honolulu. This specimen was obtained on the island of Maui by Brother Matthias. The bird is one of the commonest of the continental ducks.

Description.—Adult. Head and upper neck metallic green glossed with purple on the crown; back and upper parts black; a white patch from behind the eye across the occiput; lower neck, under parts, secondaries and scapulars white. Female duller. Length about 12.50 inches.

FREGATIDÆ. MAN-O'-WAR BIRD FAMILY.

Fregata aquila (Linn.). Iwa. Man-o'-War bird.

Apparently the iwa does not breed upon the Hawaiian group proper unless, perhaps, on Niihau. That it breeds in great numbers upon Laysan and the neighboring islands was ascertained by Palmer. The iwa is not infrequently seen about Oahu and even in Honolulu harbor. Knudsen obtained a single individual on the coast of Kauai. I have never observed the bird upon the windward side of Hawaii, nor has anyone else, so far as I can ascertain.

According to Rothschild the iwa breeds in rookeries of from half a dozen to fifty, building their nests on the scrub, and laying one white egg.

The iwa lives chiefly upon fish which they catch themselves, when so unfortunate as to be unable to find any other sea-bird which they can compel to disgorge its finny prey. They are aggressive thieves under all circumstances, and will steal the young of the gannet and other sea-birds in the very presence of the parents.

Description.—Adult male. Black all over with metallic gloss on scapulars and interscapulars. Female dull black; breast and sides whitish. Length about 40 inches.

Phalacrocorax pelagicus Pall. Pelagic Cormorant.

Mr. Rothschild records a single specimen of this cormorant from the island of Laysan where taken by Professor Schauinsland October 22, 1896. Late in November of 1900 two cormorants made their appearance in Hilo bay and remained till into the spring of 1901. One of them was shot, but what became of the other is unknown. It is possible that they were of the present species, or they may have been one of the other west coast forms that chanced to find their way here in company with the flocks of ducks that each fall wing their way to the islands for the purpose of wintering.

Description.—Adult. Head and neck violet black with changeable reflections; rest of body greenish. In breeding dress, neck and rump with white filamentous feathers; flanks marked with white. Juvenile birds of a dusky brown.

FAMILY SULIDÆ. THE GANNETS.

Sula cyanops (Sundev.). Masked Gannet.

But one of the gannets have been reported from the main group, though the others may be expected to occur in the contiguous waters, at least casually. The present species breeds both on Laysan and French Frigate Islands. No nest is made, but the two eggs are laid on the sand. All the members of the family live upon fish.

Description.—Adult. White; wing-coverts and alulae sooty brown; tail mostly sooty brown; feet yellowish. Length about 28 inches. The young are brown above, lower parts white.

Sula piscator (Linn.). Red-footed Booby.

Knudsen secured a specimen of this gannet on the coast of Kauai, concerning which he says: "The other day, when the men were out fishing, this bird came up to the canoe and tried to take the fish off their hooks." (Proc. U. S. Nat. Museum, Vol. XII, p. 383, 1890.)

This species is very plentiful on Laysan, as reported by Palmer, and was often seen, also, at sea. This and the following species both make nests upon bushes. The red-footed booby is said to lay but one egg. (Rothschild.)

Description.—Adult. White, head and neck with buffy tinge; remiges slate color; shafts of rectrices yellowish; feet yellowish. Length about 28 inches.

The young are sooty brown above; head, neck and lower parts smoky gray.

Sula sula (Linn.). Booby.

According to Rothschild this gannet was very plentiful on Lisiansky and Midway Islands, and was noticed by Palmer off Niihau. It is, however, "altogether the rarest of the three species in these waters and was absent from Laysan."

"This species builds a nest of twigs on scrub and lays two eggs, but on Midway Island, where only grass is found, it builds on the ground.

Description.—Adult. Mostly sooty brown; lower parts from breast backwards white. Length 30 to 31 inches.

The young are sooty brown all over, but paler below.

PHAETHONTIDÆ. TROPIC BIRD FAMILY.

Phaëthon lepturus Laup. V. Daudin. Koae. Salmon-tailed Tropic Bird. Bos'n.

In the "Auk" for January, 1901, the writer called attention to the presence of the "Yellow-billed Tropic Bird" on the coast of the island of Hawaii, giving it the name of *P. americanus*. He was not aware at the time that the Pacific Ocean form of the yellow-

bill had been described under the name *lepturus*. Subsequently, through the kindness of Director Brigham, an opportunity was had to examine all the specimens of tropic birds in the Bishop Museum, when it appeared that but two species were represented, viz: *lepturus* and *rubricauda*. In other words it became at once apparent that the bird which had been recorded from the coast of the several islands by various observers as *P. æthereus* was, in all probability, the present species.

Mr. Rothschild independently reached the same conclusion from the examination of the material in the Tring Museum, and the matter is duly set forth in part III, Avifauna of Laysan, p. 296.

The error of identification dates back as far as 1869 when Mr. Dole, in Proc. Bost. Soc. Nat. Hist. p. 308, gives *P. æthereus* as a resident of the islands without reference or comment. There can be no doubt that he, also, had in mind the present species. Thus *æthereus* has no present claim whatever to be considered a bird of the islands.

The koae, as the natives call this and the next species, is common along the windward side of Hawaii, frequenting, however, only those portions of the coast where the presence of cliffs offers cavities in which the birds may roost and nest.

On sunny days the bos'n is frequently to be seen as, singly or in pairs, they slowly winnow their way along the cliffs, apparently inspecting them with a view to the selection of future homes. At such times the birds often fly over points of land that project into the sea, and occasionally are seen even over the cane-fields chasing each other in play.

Lepturus appears to be the only species that now lives upon the windward side of Hawaii, although it is reasonable to suppose that the following bird occurs here, at least occasionally.

For some reason or other this bird of late years is much less numerous along the island of Hawaii than it used to be, and the same is true of Oahu and, I believe, of all the other islands of the group. The mongoose has been blamed for this decrease in the numbers of the koae, but it must be only in very exceptional instances when this animal can reach their practically inaccessible nests in the steep faces of the cliffs.

The long tail feathers of this and the following species were formerly highly valued for decorative purposes as, also, were the body feathers.

It is a common habit of this bird to visit the neighborhood of its nest once or more during the daytime, either alone or in company with its mate. These visits by the birds seem to be for no other purpose than to assure themselves that their home is all right, and has not been molested during their absence. The birds fly about the locality, now a mile out to sea then back again, for an hour, more or less, occasionally setting the wings and darting up to the very mouth of the cavity which shelters their young or egg. I have thought that their object at such times might be to call the young bird to the mouth of the burrow for the purpose of feeding it. I have never been able, however, to catch sight of the nestling nor, apparently, do the birds go close enough in to effect such a design, even could they accomplish it without making a perceptible pause.

Formerly this tropic bird frequented the steep banks of the Wailuku River, Hawaii, and nested three or four miles up that stream, but they no longer do so.

I believe this is the tropic bird that is often seen over the pit of Kilauea on fine sunny days and which breeds in the cliffs that limit the western side, although Mr. Wilson in his volume states that he shot the *P. rubricauda* there.

Description.—Adult. General color pure white, with distinct rosy tinge below; a black bar through eye; tertiaries mostly black; outer edge of primaries and shafts of tail feathers black; feathers of sides, flanks and upper tail-coverts with central streaks of black; two central tail feathers, projecting 8 or 9 inches beyond the rest, of a deep salmon color, sometimes in summer fading to nearly pure white; bill greenish yellow, indeterminately marked with bluish black; legs and feet pale bluish; webs black. Length 22-23 inches.

Phaëthon rubricauda (Bodd.). Koae. Red-tailed Tropic Bird.

The red-tail occurs probably off all the islands of the main group, although the writer feels by no means sure that Wilson has not confounded this and the preceding species when he states (*Aves Hawaiiaensis*) that "it breeds in several places in the group,

especially on Kauai and Niihau, and chooses holes in almost inaccessible cliffs wherein to deposit its eggs." These remarks certainly apply well to *lepturus*, and it may prove to be that species only which frequents the rocky cliffs of the main group. As noted by Wilson, the nesting habits of *rubricauda* on Laysan are very different since there, according to Palmer, "they make a hollow in the ground under the bushes for their nest."

The writer has not met with this species on the windward side of Hawaii, nor do any of the resident natives appear to be acquainted with it. He learns, however, that it has been seen and shot on the coasts of Hamakua and Kohala, on the northern extremity of the island.

Upon the island of Laysan this tropic bird nests in June. Both species lay but one egg.

Description.—Adult. General color satiny white with more or less of a rosy tinge; above barred and spotted with black; a black crescent before the eye and a smaller one behind; two central, elongated tail-feathers crimson with black shafts; bill red; feet yellowish; toes black. Length about 30 inches.

PROCELLARIIDÆ. PETREL FAMILY.

Puffinus cuneatus, Salvin. Wedge-tailed Puffin. Uau Kane.

This rare petrel was originally described by Salvin from the Krusenstern Islands (Marshall group), and the same year (1888) was redescribed by Stejneger as *P. knudseni* from Kauai from specimens furnished by Mr. Knudsen. Of the occurrence of the species on Kauai, Mr. Knudsen says: "It was formerly found plentiful every summer at the top of the mountains as high up as 5,000 feet, where they had their nests in long burrows, but that in the last ten years they have become rare, as the foreign rats kill them in their nests."

This puffin was observed by Palmer on all the northwestern islands except Midway, but only in small numbers. He says it "lives in pairs and lays only one egg in a rude nest made of grass in a burrow in the sand."

Description.—Adult. Above sooty brown, darker on head, rump and wing-coverts; quills and tail-feathers black; underparts white; sides of head and body gray; bill horn-gray; feet pink. Length about 17 inches.

Puffinus newelli, Henshaw. Newell's Puffin.*

This bird was first obtained by Mr. M. Newell on the island of Maui in the spring of 1894, several of them having been taken from their burrows by the natives and brought to Mr. Newell alive. Two specimens were saved, one of which, the type, is in my possession, the other being in the museum of St. Louis College in Honolulu.

At the time mentioned the species was numerous in the Waihee valley and probably elsewhere on Maui, but it is to be feared that the species has since suffered from the mongoose, which is rapidly exterminating the native puffins elsewhere on the islands. At present no particulars of its habits are known.

Mr. Bryan in his Key gives the island of Kauai also as the habitat of the species, where it was obtained by Mr. Francis Gay, and the bird may prove to be somewhat generally dispersed throughout the group. I saw numerous puffins in the channel between the islands of Molokai and Maui. They were rather close to the steamer, and their appearance seemed to exactly coincide with the present species.

Description.—Adult. Above, including upper surface of wings and tail, clear and somewhat glossy black. Border of under wing-coverts black. Beneath, including under tail-coverts, pure white. Maxilla and edge and tip of mandible black; rest of maxilla light brown. Tarsus and feet light yellow, but black along the outer posterior side of tarsus, the outer toe and half the middle toe. Wing, 8.65; tail, 3.75; bill, 1.28; tarsus, 1.80.

Puffinus nativitatis Streets. Christmas Island Shearwater.

Recorded by Mr. Bryan in his "Key to the Birds of the Hawaiian Group" as from the French Frigates and Laysan Islands.

*This species was described by the author in "The Auk" for July, 1900. By an unfortunate misprint it was ascribed to the island of "Ulani" instead of Maui.

Description.—Adult. Lower parts uniform dusky black; bill deep black; under wing-coverts deep sooty black; primaries and tail feathers black. Length about 15 inches.

Oceanodroma castro (Harcourt). Ake-Ake. Hawaiian Stormy Petrel.

Nothing appears to be known concerning the occurrence of this petrel in the islands, save that two specimens were collected by Mr. Knudsen on Kauai, from which the species was described by Mr. Ridgway, and that it has been observed and collected on Niihau by Mr. Gay. Mr. Rothschild notes the bird also from French Frigate Island.

I have little doubt that the akeake is much more common and widely dispersed among the islands of the group than the above meager notices would seem to indicate. Very little work has been done as yet in the waters surrounding the islands, even in-shore, and their thorough examination will yield many facts of interest.

The natives report a small petrel, which they call by the above name, as common on the fishing grounds five or ten miles off the windward coast of Hawaii, and I have little doubt that it is this species, although I have not yet been able to obtain a specimen.

Description.—Adult. General color fuliginous; head and upper parts more slaty; remiges and rectrices dull black, the latter (except middle pair) white at base; upper tail-coverts white. Length about 8 inches.

Oceanodroma fuliginosa (Gmelin). Sooty Petrel.

According to Rothschild evidence of the occurrence of this petrel on Laysan was obtained by Prof. Schauinsland and later was verified by the finding of the species breeding in small numbers. The bird is chiefly known from the Japanese seas.

Description.—Adult. Crown, occiput, hind neck, scapulars and upper rump uniform dark sooty slate, darker and more sooty on posterior scapulars; lesser and uppermost median and greater wing-coverts sooty black; rest of wing-coverts and tertials light grayish brown; alula, primary coverts and remiges uniform sooty black; lower rump light grayish brown; upper tail-coverts and tail sooty black; anterior portion of head grayish brown; under parts sooty grayish brown. Length about 10 inches. (After Ridgway.)

Bulweria bulweri (Jard & Selby). Bulwer's Petrel.

Until somewhat recently this petrel was supposed to be wholly confined to the Atlantic Ocean where it has a wide range. The bird, however, was found by Mr. Palmer breeding commonly on French Frigate and also on Laysan Island. In the archipelago proper this petrel is known only from Kauai, where Mr. Knudsen collected two specimens.

Description.—Adult. Entire plumage sooty brownish black; bill black; feet brown. Length about 11½ inches.

Æstrelata phaeopygia sandwichensis (Ridgway). Uuau.

A female of this petrel in the juvenile plumage came ashore on Hilo beach November 20, 1890, in an exhausted condition, and was secured by some boys by whom it was given to Mr. Newell, after having been kept alive for several days, when it died.

The natives inform me that the uuau is common on the fishing grounds, some five to ten miles off the windward side of Hawaii. They say also that formerly this bird nested in great numbers in the lava between Mauna Kea and Mauna Loa. They have visited the old nesting sites within a year or two, but report that they are no longer occupied, having been invaded by the mongoose.

It is said that years ago the nestlings of the uuau were considered a great delicacy, and were tabooed for the exclusive use of the chiefs. Natives were dispatched each season to gather the young birds which they did by inserting into the burrows a long stick and twisting it into the down of the young which then were easily pulled to the surface.

The native name for this bird, it is said, can be pronounced so as to exactly imitate its nocturnal cry.

The author feels reasonably sure that this species of petrel is the mysterious nightly visitor that for many years past has periodically invaded the town of Hilo upon dark and stormy nights, usually during the fall and winter months. The flying visits of the birds usually begin about half past seven or eight and, if the night be a stormy one with heavy showers of rain, the harsh, snarling cries of the bird may be heard intermittently all

night long, as they fly rapidly back and forth over the zone of light that marks the populous part of the town. Whenever the heavy tropical showers cease, the cries are stilled, and the birds apparently retire to the sea; but the onset of another gust with accompanying rain is the signal for the return of the birds.

It is not surprising that these invisible visitors of the darkness, whose uncanny wailings come from the upper air, have excited the superstitious fears of the natives, and that they should interpret their voices as the sign of some unusual and calamitous event.

Upon a few occasions when the rain has been resolved into a fine mist and the electric light has been reflected upward as against a curtain, the writer has succeeded in getting a glimpse of the flying birds. Their white underparts, which can be plainly seen, and the peculiar character of their flight convince him beyond much doubt that the bird is none other than one of the petrels.

The birds fly a hundred yards and more above the earth, clearing the tops of the tallest palms, and the height has so far rendered futile all attempts to secure a specimen. Some of the natives solemnly declare, with a significant shake of the head, that they do not know the bird at all, that it has no name and has never been seen by human eye. Others, better informed or less superstitious, affirm with much positiveness that the bird is none other than the uuau; others believe it to be the ao; while others still are equally positive that it is the koae. The question can be settled absolutely only by obtaining a specimen—no easy task.

Description.—Adult. Above brownish slate, darker on wings and tail; head black; feathers of hind neck and upper tail-coverts white beneath the surface; forehead, lores, cheeks and under parts white; sides and flanks lightly barred (or not) with dusky; bill black; tarsus and upper half of foot flesh color; lower half of toes black. Wing, 10.75-11 inches; bill, about 1.20 inches.

Æstrelata hypoleuca, Salvin. Salvin's White-breasted Petrel.

"Palmer met with this rare petrel only on Laysan, where he found four moulting specimens in the daytime in deep burrows. They were completely dazed when taken out of their hiding

places, and behaved as if they were quite blind. According to Mr. Freeth, their breeding-season was now over, June 16-26, but they came ashore in large numbers earlier during their breeding-time. They are quite nocturnal like other species of this genus."

Description.—Adult. Feathers of the forehead up to the middle of the head deep slate-color, broadly margined with white, and white at base; feathers just above the bill, lores, and entire under surface white; occiput and hind neck deep slate-color; feathers of the inter-scapular region black, and upper part of rump slate-color, with pale cinereous margins; lower rump deep slaty. * * * Length about 13 inches. (Rothschild.)

DIOMEDEIDAE. ALBATROSS FAMILY.

Diomedea immutabilis, Rothschild. White Albatross.

This albatross breeds in immense numbers upon Laysan and also upon Lisiansky islands. Apparently it is more or less common throughout the Hawaiian main group, though it is not known to breed upon any of them.

Description.—Adult. "Head, neck, lower rump, and entire under surface pure white; space in front of the eye sooty black; wings and wing-coverts blackish brown; interscapular region, back, and upper part of rump paler and more smoky brown; tail black, fading into white at base; under wing-coverts mixed blackish brown and white. Total length about 32 inches." (Rothschild.)

Diomedea nigripes, Aud. Brown Gooney.

This is the gooney that follows in the wake of ships from San Francisco to Honolulu and Hilo. The birds feed upon the scraps of pork and meat thrown overboard from the kitchen, and it is simply amazing that birds will fly so far and take so much trouble for such meager reward. Usually the last gooney parts company with the southward bound ship when some 500 miles off the islands, but occasionally individuals keep on till immediately off the harbors. At rare intervals I hear of an albatross coming ashore on Hawaii to roost for an hour or so on the rocks, but whether this or the preceding species cannot be determined as no specimens have been collected.

Description.—Adult. Dusky throughout; grayer beneath; forehead, tail-coverts and base of tail white. Length 28.50-36.00 inches.

LARIDÆ. GULL AND TERN FAMILY.

Sterna fuliginosa, Gmelin. Ewaena; Sooty Tern.

I have not found this tern upon the coast of the island of Hawaii, although it may occur there in small numbers, as it has been taken upon the shores of Oahu and Kauai, and Mr. Palmer found it breeding abundantly upon Laysan island.

Description.—Adult. Upper parts sooty black; forehead, sides of head, and under parts white, as also mostly the outer pair of tail-feathers; bill and feet black. Length about 15-17 inches.

Sterna lunata, Peale. Pakalakala. Bridled Tern.

This is another species of tern which has not yet been found on the coast of the island of Hawaii, the shores of this island being perhaps less adapted to the habits of the gulls and terns than those of any other of the group. It was found, however, upon Kauai by Mr. Knudsen, and Palmer found it in abundance upon Laysan. The bird deposits but one egg, and this on the sand.

Description.—Adult. Upper parts dark ashy, paler on the hind neck; forehead, a broad stripe through the eye and entire under parts white; head and neck black. Outer webs of primaries blackish; inner webs white with a black stripe along the shaft. Outer webs of tail-feathers gray, inner webs white; outer pair of rectrices white. Length about 16.50 inches.

Sterna paradisæa Brunn. Arctic Tern.

The only claim this tern has to recognition here is the occurrence of a lone individual on Hilo beach May 9, 1891. The bird boarded a schooner bound for Hilo when four days off port, but disappeared on the third day following, having evidently sighted land. It was next seen on the beach by some boys, and was in such an exhausted condition that it was caught by hand, and, still living, came into the possession of Mr. R. T. Guard. It died the following day, probably from exhaustion and starvation, as it was

much emaciated, and subsequently was kindly presented to the writer.

Presumably the bird was migrating somewhere along the American coast towards Alaska when, in some way, it was lost or blown out to sea, and made the weary passage nearly to Hawaii, probably with neither rest nor food.

Description.—Adult. Top of head black; above deep pearl-gray; tips of secondaries, rump, upper tail-coverts and tail white; beneath deep lavender gray; sides of head and lower tail-coverts white; outer web of outer tail feather dusky; bill and feet carmine; length 14 to 17 inches. In winter the crown is white with black streaks; the lower parts white.

Sterna melanauchen Temm.

Two specimens are reported by Mr. Bryan to be in the Bishop Museum which were taken at Mana on the island of Kauai by Mr. A. F. Judd during the winter of 1892-93. "Both have the white foreheads assumed by this species, while the remainder of the plumage is badly worn."

December 24, 1901, a third specimen of this tern was obtained at Hakalau by Mr. H. Beveridge during a severe and prolonged storm. The bird evidently was a wanderer and had left the sea to seek shelter on the land. It is in excellent plumage. The bill of this specimen is black, the extreme tip lighter. The legs and feet in life were orange, or perhaps red. Mr. Bryan has kindly compared this bird with the museum specimens and his remarks are added. "The Museum specimens are much more badly worn. The bills are *horn* black, with lighter tip; the feet indicate red, though very much discolored. The black patch in front of eye is better defined in your specimen, and the Museum specimens have more dark feathers about the carpal joint. I should judge your bird to be adult while ours are more immature."

The tern is of far southern distribution in the Pacific, occurring through Polynesia generally, the Philippines and on the Chinese coast. It is probably entirely accidental in the Hawaiian Islands.

Description.—Adult. "Crown always white, sometimes with a brownish tinge; nape, orbit, and ear coverts black; mantle pale gray; in front of

the eye a black triangular patch, the point of which does not reach to the base of the bill; from the eyes a black band extending about the back of the head; band broadened and more or less prolonged down the back of the neck; neck and under parts white; mantle and rump pearl gray; shafts of the primaries white; outer primary with the outer web blackish, streak next the shaft on the inner web blackish or grayish black." Length about 13.25-13.50. (Bryan.)

Anous stolidus (Linnaeus). Noddy Tern.

This tern was found by Palmer breeding upon French Frigate and Laysan Islands, and hence may be expected to occur as a visitor on the Hawaiian group from where, however, no present record of it exists.

Description.—Adult. Sooty brown, grayer on neck and passing into white on forehead; quills nearly black. Length 13.00-16.75.

Anous hawaiiensis, Rothschild. Noio.

This tern was well named *hawaiiensis*, for it may be regarded as *the* Hawaiian tern. It is found in colonies all along the coast of the island of Hawaii, wherever caves and ledges occur in the face of the cliffs suitable for roosting places and for nesting sites. It probably occurs, also, on all the other islands. The noio lives wholly upon fish, to obtain which it habitually makes excursions off shore ten or fifteen miles. Indeed comparatively little of its food is obtained in shore, though occasionally the birds may be seen slowly winnowing their way along the surf-streaked coast, and scanning the heaving billows with anxious eye for their quarry.

While following its prey on the broad ocean the noio is of much service to the Hawaiian fishermen, and acts as his pilot; for its presence in numbers in a given spot marks the whereabouts of shoals of noi, a long silvery minnow, and there also is sure to be found the aku, or skipjack, much sought after by the fishermen.

This tern never dives for fish but with a quick stoop and a dip of the head it seizes the unsuspecting minnow when close to the surface.

In the olden time I learn that the natives used to raid the nesting sites of the noio pretty regularly for both eggs and young, the latter especially being esteemed delicacies as indeed were the young of most sea-birds. For this purpose dark nights were usually chosen and by means of torches and the help of clubs the old birds, bewildered by the light, were easily secured.

A few straws picked up from the surface of the sea—a mere apology for a nest—serves to keep the one egg from rolling off the ledge. The egg is very large for the size of the bird, and the ground color is light buff spotted heavily with dark brown and purplish.

Description.—Adult. Forehead and top of head ashy white, gradually merging into sooty black of back; hind neck and upper part of back ashy gray; wings sooty black; tail grayish; beneath sooty black. Length about 13.50 inches.

Gygis alba (Sparrman). White Tern.

Included by Mr. Dole in his list of 1869 and found by Palmer breeding upon Laysan and Lisiansky Islands. Doubtless this tern will be found to occur upon the Hawaiian group, at least upon the northern members, as an occasional visitor.

Description.—Adult. White, eye encircled narrowly with black. Bill and feet black. Length about 13 inches.

Larus barrovianus Ridgway. Point Barrow Gull.

Mr. Bryan reports (Key to the Birds of the Hawaiian Group) two specimens of this gull as having been taken on the island of Kauai by Mr. Francis Gay and a third as being in the Museum of St. Louis College. The latter was procured on the island of Maui by Brother Matthias. These birds would seem to be accidental strays from the Alaskan coast.

Description.—Adult. Head, neck, tail and under parts white; mantle pale pearl gray.

In winter, head and neck streaked with brownish. Length about 25-28 inches.

Larus glaucescens, Naum. Glaucous-winged Gull.

This gull seems to be a rare and irregular visitor to the island of Hawaii and probably also to the other islands, especially to Oahu. Every year or two, one or more individuals are seen about Hilo harbor, evidently having followed vessels down from San Francisco. Apparently these wanderers never attempt to return, but their final fate is unknown.

According to Rothschild, Prof. Schauinsland obtained a specimen of this species on Laysan.

Description.—Adult. Mantle pearl gray; head and under parts white; primaries with small white spots at the tips; in winter top of head and hind neck streaked with dusky. Length about 25 inches. The young are gray more or less variegated with white.

Larus philadelphia (Ord). Bonaparte's Gull.

Rothschild records the fact that a young female of this species was obtained by Palmer at Poli-hule lake on Kauai, March 15, 1891. So far as known at present this is the first and only record of the bird in the islands.

Description.—Adult. Head plumbeous; mantle pearl gray; under parts white; feet orange red. Adult in winter has a white head and flesh colored feet. Length from 12-14 inches.

Larus franklinii Sw. & Rich. Franklin's Rosy Gull.

Mr. Bryan reports a single specimen of this species as having been taken on the island of Maui by Brother Matthias. The specimen is now in the St. Louis College cabinet. As this gull is an inhabitant of the interior of the American continent the presence on the islands even of a single individual must be regarded as very remarkable.

Description.—Adult. Head black, with white on eyelid; mantle plumbeous; quills bluish gray, white tipped. In winter similar, but head white. Length about 13.50-15 inches.

Larus delawarensis Ord. Ring-billed Gull.

Mr. Bryan reports a single specimen of this gull as being in the St. Louis College cabinet from the "Hawaiian Islands." Like several other of the American coast gulls its presence in the Hawaiian Islands is accidental. In time, no doubt, all of the northwest coast gulls will in like manner appear as casual visitors.

Description.—Adult. Mantle pearl gray; lower parts, white; bill greenish yellow, black banded near tip. Length about 18-20 inches.

Larus californicus Lawr. California Gull.

A specimen of this gull is reported by Mr. Bryan to be in the St. Louis College cabinet from the "Hawaiian Islands." Its presence here, like that of the preceding species, is, of course, purely accidental.

Description.—Adult. Mantle dark gray; bill yellow with a crimson spot near end of lower mandible; scapulars and secondaries broadly tipped with white. In winter, head and neck broadly streaked with brown. Length about 20-23 inches.

LIST OF BIRDS INTRODUCED INTO THE ISLANDS.

For the sake of completeness a list of the birds that have been purposely introduced into one or more of the islands of the group, and that have become established, is appended. For remarks upon this subject more in extenso the reader is referred to a paper by the author in the Hawaiian Annual for 1900.

PLOCEIDÆ. WEAVER BIRD FAMILY.

Munia nitoria punctata (Temm.). Rice Bird.

Originally introduced from the Malayan Peninsula into Oahu, but now apparently distributed over all the islands of the group and abundant in most localities. Where there are no rice fields the bird is harmless enough, but it is a nuisance in the rice patches and the cause of much loss to the planter.

Description.—Adult. Above chocolate brown; shafts of feathers white; throat deep chestnut; sides of body streaked. Length about 4.50.

FRINGILLIDÆ. FINCH AND SPARROW FAMILY.

Passer domesticus Linn. European House Finch.

Apparently this undesirable little pest (little in size but great in its capacity for mischief) is chiefly, if not wholly, confined to the island of Oahu, where it was first introduced. It is abundant about Honolulu. By determined and sustained effort it would be possible to exterminate the species in Oahu before it has secured a foothold in the other islands, and so to eliminate it as a certain source of danger to the agriculturalist. The history of this finch in America and the extent of the damage it inflicts are too well known to need repetition here.

Description.—Adult male. Above brown, back streaked with black; wing twice banded with white; throat blackhead grayish with patch of chestnut; under parts grayish. Female duller. Length 5.50-6.25.

Carpodacus mexicanus frontalis (Say). Crimson-headed Finch.
"Linnet."

This pretty finch is probably established on all the islands. Upon certain parts of the islands of Hawaii and Maui it is exceedingly numerous and is increasing all the time. The windward and rainy regions are not well suited to its habits, but in dry climates as in Kau, Hawaii, and in some districts of Maui the bird flourishes remarkably and may there be seen in large flocks. Were it not for its fruit-eating proclivities, the trim form and pleasant song of this finch would make it a welcome addition to the island avifauna.

Description.—Adult male. Above ashy brown, streaked with darker; forehead lores, throat, breast and rump crimson; sides much streaked with brown; abdomen ashy. Female duller. Length about 5.50.

STURNIDÆ. STARLING FAMILY.

Acridotheres tristis (Linn.). Mynah.

The mynah, originally a native of India, is now widespread over the islands, and there is no doubt that the bird is constantly

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STURNIDÆ. STARLING FAMILY.

Acridotheres tristis (Linn.). Mynah.

The mynah, originally a native of India, is now widespread over the islands, and there is no doubt that the bird is constantly

increasing in numbers. Notwithstanding that the mynah destroys vast numbers of insects and in this way is of direct and great value in the cane-fields, in the pastures and among horses and cattle, there is a strong and growing prejudice in the islands against the bird.

The charge is made that the mynah invades the cote of the domestic pigeon, and even ejects the eggs and young birds. That the mynah sometimes disposses the pigeon of its home there is no doubt, although, on the other hand, it not rarely shares a portion of the cote with the proper owners, and seems to rear its young on not unfriendly terms with them. The object of the mynah is not direct injury to the pigeons—for apparently it eats neither their eggs nor their young—but is solely to find a safe place for their own eggs, the mynah being partial to boxes and to cavities in trees in which to nest.

In any event little damage is to be apprehended from the above source, since the cote can be freed from mynahs with but little trouble. A much more serious charge against the mynah is that it has a strong partiality for figs and other small fruits. The bird is and always will be a nuisance to the fruit grower.

There is still another and even more serious charge made against the mynah, viz.: that it destroys and drives away the native birds. It is an undoubted fact that practically all native Hawaiian birds are diminishing in numbers, and the belief is widespread that the mynah is directly responsible for the diminution.

Thus Mr. Rothschild in Vol. III of the *Avifauna of Laysan*, p. 300, states that the mynah "kills and eats the young and eggs of small birds." Unfortunately this author gives no specific cases, and does not mention the birds attacked. Probably, however, native birds are the ones in mind.

More recently still Mr. Perkins (*Ibis* for October, 1901) affirms that the mynah "not only attacks and drives away other birds, but also devours their eggs and young." He adds further (p. 580) that he has himself seen the mynah "devouring both young and eggs of other species." Such evidence is of course conclusive

enough, although, again, it is unfortunate that more specific information is not given.

Of course if the destruction of eggs and of the young of smaller species is a general and confirmed habit of the mynah, inquirers need seek no further for the cause of the recent decrease in the number of native birds, and the mynah should be condemned to immediate extermination if that be possible. I believe, however, the above observations to be highly exceptional, and that such acts of the mynah are very rare.

I have had the mynah under observation in town, in pasture land and in the forest for several years, having early surmised that the bird might ultimately prove injurious to the native species, and I have never seen a mynah attack or in any way disturb a native bird, though hundreds of times I have observed the small native species feeding in the same trees with mynahs, neither paying the slightest attention to the other. Nor has diligent inquiry among the natives and settlers revealed anyone else who has seen the mynah exhibit signs of hostility towards the native birds.

If any of the native birds nested in the cavities of trees, there is not the slightest doubt that they would be dispossessed by the mynah. Or if there was a conflict over food, the native birds would soon be driven to the wall by the larger and fiercer mynah. The food habits of the mynah seem, however, to conflict very little, if any, with the native species.

Even a species which is in the main beneficial may increase to such an extent as to be a nuisance, and such seems likely to be the case with the mynah. Its numbers, even at present, are startling, and there seems to be no limit to the possibilities of its increase. Any altitude, high or low, is suited to its tastes. It is true that the bird shuns the denser forest, but in tracts where the undergrowth has been somewhat thinned by cattle it is entirely at home, no matter how far from civilization.

It is distinctly possible that it is to the immense numbers of the mynah, which sometimes seem to fill the forest trees with their flocks, and to their harsh noises, rather than to any direct hostility or injury by them, that is

due the antipathy of native birds, if such they have. So far as my own observations go I am bound to state, as above, that I have never noted such antipathy. Perhaps the native birds passively endure the hated presence of the noisy strangers till they finally abandon a locality in sheer disgust.

All theories aside, the important fact is that the mynah was introduced into the Hawaiian Islands, unadvisedly as most think, that the bird has increased to an amazing extent and is still increasing without sign of abatement. I have endeavored to take as optimistic a view of its presence in the Islands as possible, for, apparently, the bird is here to stay. For the mynah is a wary bird, and neither the gun, traps or poison are likely ever to have any serious effect upon its numbers. The further increase of the bird may, perhaps, be checked, though not without much expense, but its extermination is practically impossible.

The lesson of its introduction into the Islands is an easy one to read, and should be profited by.

Description.—Adult. Above brown, as also breast and sides; head and neck blackish; a bare patch of yellow behind eye; wing barred with white; abdomen and under tail-coverts white; bill yellow. Length about 9.50.

ALAUDIDÆ. LARK FAMILY.

Alauda arvensis Linn. Skylark.

The European skylark was introduced into Oahu several years since, and the experiment appears to have been a great success.* The bird is now found in several parts of the island and seems to be constantly increasing in numbers, though not very rapidly. I

*The introduction of the skylark into these islands is to be credited to Hon. A. S. Cleghorn, who imported them from New Zealand in the latter part of the year 1870. This initial lot was turned over to Judge Robt. Moffitt, of Kahuku, Oahu, who liberated them on the high table land of Leilehua and open mountain slopes. A subsequent colony from and through the same source was given to the late Albert Jaeger, who set them free at Moiliili, or upper Waikiki.

believe that the bird is found in small numbers upon Maui. A few have been brought from Oahu to the windward side of Hawaii, but their fate is at present unknown.

Description.—Adult. General color brown streaked with black; chest buffy, black streaked; outer tail-feathers nearly all white. Length about

PSITTACIDÆ. PARROT FAMILY.

Platycercus palliceps. Blue-cheeked Parrot.

The presence of this parrot in a wild state was detected by Palmer in 1892 on Haleakala, Maui, and several specimens were secured. In June of 1901 the writer found the bird to be by no means uncommon in the forest on the slopes of Haleakala at an altitude of about 6,000 feet. This locality, above Olinda, was somewhere near the place where the bird was found by Palmer.

Those seen by me were mostly in pairs and probably were nesting, so that I did not molest them. They were usually feeding upon grass seeds on the edges of the forest, and when alarmed immediately took refuge in its depths. Mr. H. P. Baldwin has a small patch of corn at Olinda, and I was told that when this was in the ear the parrots visited the patch in great numbers to feed upon the ripening ears.

With reference to the origin of these wild parrots, I am informed that they came from a pair which were liberated years ago at Ulupalakua, East Maui, by Captain Makee. The pair remained near the premises for a long time, until in fact they had reared a young one, when they left.

This parrot is a native of eastern Australia.

Description.—Adult. Head pale yellow; cheeks white, bordered below with blue; feathers of the nape, back and scapulars black, broadly margined with gamboge-yellow; rump feathers and upper tail-coverts very pale greenish blue with the bases black; under surface bluish, each feather fringed with black; under tail-coverts scarlet; wings blue. Length about 13 inches. (Salvadori.)

COLUMBIDÆ. DOVE AND PIGEON FAMILY.

Turtur chinensis (Scop.). Chinese Turtle Dove.

Introduced a number of years ago and now more or less abund-

ant on all the islands. This dove is partial to a dry climate, and hence does not thrive and multiply on the windward side of Hawaii and the other islands as it does in the less rainy sections. In some localities doves are exceedingly numerous, and are much sought after by sportsmen. They are found in the mountains to an altitude of at least 6,000 feet.

Description.—Adult. Upper parts generally light brown; hind neck black with white spotting; occiput bluish gray; outer tail-feathers broadly tipped with white. Length 12-13 inches.

TETRAONIDÆ. GROUSE AND QUAIL FAMILY.

Lophortyx californicus (Shaw). California Valley Quail.

Introduced many years ago and formerly abundant on all the islands. In most regions the bird has been practically exterminated from the lowlands but in certain localities, as upon Hawaii, is still abundant in the regions above heavy timber, at an elevation of 6,000 or 7,000 feet, where the mongoose, its deadly enemy, has but a slight foothold.

Description.—Adult male. Above brownish ash; occiput brown; crest black; throat black, bordered by white line; breast slaty blue; belly chestnut, with scale-like markings. Female smaller and duller. Length about 11 inches.

PHASIANIDÆ. PHEASANT FAMILY.

Phasianus torquatus Gmel. Mongolian Pheasant.

Introduced from China several years ago and now well established on Oahu, Molokai and Kauai.

Description.—Adult male. Upper parts chestnut; a white ring around the metallic green neck; breast with metallic reflections. Female duller and smaller. Length 20 to 30 inches.

Phasianellus versicolor Vieill. Japanese Pheasant.

Occupies about the same status in the islands as the preceding species.

Description.—Adult. General color dark green, lower neck and mantle variegated with buff; no white nuchal ring. Female duller and blacker. Length 24-29 inches.

RALLIDÆ. RAIL GALLINULE FAMILY.

Porphyrio melanotus Newton. *Alae awi*.

This Gallinule seems to be rather numerous in the taro patches and rice swamps of Oahu, having been introduced from Australia. So far as I am informed it has not reached the other islands.

Description.—Adult. Above black; below bluish; thighs purplish brown; under tail-coverts white; bill, frontal plate, legs and feet red. Length about 17.25.

Many years ago the domestic fowl took to the forests and soon became as wild there, and in as complete a state of nature, as before it was domesticated. In a similar way, though perhaps not quite to the same extent, the turkey returned to its natural wild state, and in many regions became abundant. Both species furnished excellent sport, and supplied welcome tidbits for the table. The introduction of the mongoose changed all this, and today both birds have been practically exterminated by that animal, assisted, no doubt, by wild cats and wild dogs, both the latter being numerous in some regions.

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HAWAIIAN BURIAL CAVES.

By Rev. W. D. Westervelt.

THE CAVES of the Hawaiian Islands are volcanic. When the fiery rivers of melted lava burst the crust of the underworld the river-surface always cooled first, forming a hard crust, while the burning heart continued its liquid flow. When the rivers of fire had passed out from under this cooled surface and had spread its lava over the plain, in its last petrified effort, great hollow channels, or tunnels, remained, roofed over by lava. Thus caves

of a greater or less extent are almost always found in the path of every eruption. Sometimes small bodies of gas, or heated air, were not strong enough to break through the lava. When the final cooling process came, these were left in their place, making cavities which ultimately became niches or holes, when the outer surface had broken off. These caves are sometimes deep in the hearts of the mountains, the results of lava flows over which many later rivers of lava have passed. It is well said that all the mountains of Hawaii are honey-combed with long caves—recesses and tunnels, left by departed lava floods. These may from time to time offer the avenue of least resistance to newly-formed lava, and thus provide a place of deposit for the surplus rising from the under-fire fountains. It is a curious fact that of all the eruptions from Mauna Loa during the last century, none have come from an overflow of the crater on the summit of the mountain, but all have made their appearance by bursting through the mountain side, thousands of feet below the crater. They found the old caves and thin walls and melted their way through to the outer world.

The lava flow of 1880, just above Hilo, Hawaii, affords an excellent opportunity for visitors to easily see as many caves as they may desire to explore. This field of lava started from a crevice in the side of Mauna Loa, forty-five miles above Hilo. The eruption continued ten months, and came within a mile of the city. An enormous amount of lava was discharged. The glossy ceilings, the stalactites and stalagmites still to be found by the cavern sides, and the fantastic forms of lava pillars and room ornaments, add to the weird feeling which always comes when working along the path of extinct fire rivers.

It is no wonder that from time immemorial such caves have been used by the Hawaiians as depositories for their dead. They were so numerous and so easily concealed, and so thoroughly connected with the mysterious forces of nature, that they were naturally chosen for the sacred hiding places. All the larger islands have cave localities devoted to burial and known as *ua wahi huna keke*, "the places for secreting the bones of the dead."

On Kauai, the precipices back of Waimea, the cliffs of Haena and Hanalei, and the almost inaccessible recesses of Napali have been the "huna kele" for both chiefs and people.

On Oahu, the caves of Niu, near Koko Head, Manoa, Moanalua, Waianae, Waialua and the Koolau mountain range, were abundantly used for burial.

On Maui, the slopes of Haleakala and the caves of Iao valley are historic because of their use by noted chiefs and families.

On Hawaii, Waipio valley, the cliffs of Kealahou bay, the caves of Kaloko, in North Kona, and the "House of Keawe," in the temple of refuge at Honaunau, were well-known places to which the bones of the dead were carried.

Lanai, with its ocean caverns, was sometimes frequented by the guardians of dead bodies. One of the most beautiful stories of the islands is that of Kaala, a girl who was concealed in a Lanai cave, which could only be reached by diving through ocean waters. The location is marked by a whirlpool sinking down in the reef and then a great column of water rising high over the surf. Kaala was carried to this place by her angry father, who determined to keep her from marrying the young man of her choice. He seized her, swam under water and placed her in the cave. The incoming surf would crowd the air back to the upper levels of the cavern. When the water receded the compressed air followed and forced the column of water upward from the opening under the surface of the waves. Here Kaala rapidly grew weaker and was dying when her lover found her. He killed himself that they might not be separated in the spirit world. Thereafter the place was known as "The Spouting Cave of Kaala."

In Manoa valley, near Honolulu, is the great cave in which Kamehameha lived for a time with a body of his warriors. The path to the entrance is marked by a few straggling coconut trees. The Hawaiians say this cave formerly extended through the mountain spurs from Manoa to Palolo valley.

Near the summit of the great mountain on Hawaii, Mauna Kea, is a cave which Fornander connects with the Hawaiian legends of "The Flood." When the flood had reached its

height and begun to recede the Noah of the Hawaiians was commanded to go out of the boat in which he and his family had been saved. He landed on the summit of Mauna Kea, found a cave, lived in it for a time, and named it after his wife, Lili-nae, a name which Fornander says it still retains.

On the north side of Kauai is the almost inaccessible cave region of Napali, a famous hiding place in recent times for lepers who dreaded the exile on Molokai. One of the oldest Hawaiian legends is attached to the caves of Kalalau, a part of Napali. Lohiau loved Hiaka, a sister of Pele, the goddess living in the great volcano of Kilauea. He died and his body was carried away secretly and hidden in one of these caves of Kalalau. For a time Hiaka was inconsolable, but at last traced the body to Kauai and finally to its tomb. It was near sunset when she came to the foot of the precipice in which the cave was located. Her friends at Haena had warned her that she must not try to climb to the cave if the light failed. So she prayed to her gods to keep the sun from going down while she went up the mountain side. The legends say that the light lasted while she scaled the cliff, conquered the spirit guardians of the dead, carried the body to her boat and returned to Hawaii.

Iao valley, on the Island of Maui, is the first place mentioned in the historical legends as a place for the secret burial of high chiefs. Kapawa, the ruling chief of Hawaii about twenty-five generations ago, was overthrown by his people, assisted, perhaps, by Paa from Samoa. His body was said to have been taken to Iao and concealed in one of the caves of that picturesque extinct crater. From that time apparently this valley became a "hallowed burying place for ancient chiefs."

Waipio valley, Hawaii, is reported to be the place of burial of Umi, one of the best known chiefs in Hawaiian historical legends. It is said that his confidential friend agreed with him that especial care should be taken in the secretion of his body. In order to avoid all suspicion of responsibility concerning the body of his king, he was to be dismissed and exiled and his lands confiscated. Then from the district of

another high chief in Molokai he watched for the last days of his friend. When he knew that Umi was dying, he journeyed back to Hawaii. After landing, he met a man almost the counterpart of his chief. This man he killed, and carried to the place where the dead body lay. Then he secretly changed the bodies, took the body of Umi to his canoe, paddled away, according to one legend, to Waipio valley and buried the corpse in the cave, Puaahaku, at the top of the great precipice over which falls the noted Waipio cascade.

Sometimes the bones of a high chief were carried entirely away from his home island and concealed in the land of his former enemies. Thus Kahekili, King of Oahu, who died at Waikiki in 1794, was taken by two of Kamehameha's most influential counselors, after the bones had been prepared for burial. These men carried the bones from Oahu to one of the caves of Kaloko, in North Kona, Hawaii. This was permitted by both the son of Kahelili and by Kamehameha, without any reference to the warfare in which they were continually engaged.

The place where Kamehameha died is marked by a rude pile of stones on the northern shore of Kailua bay, Hawaii. In the Hawaiian history published in 1858, in the Hawaiian language, the story of the secretion of the bones of the great chief is told as follows:

"The bones of Kamehameha were collected in a certain house lest some one should make him an *akua-au-makua*, 'a ghost-god.'" When the ceremonies in that place were finished Hoapili ordered his man, Hoohiki, to take the bones of Kamehameha to a certain place called Kaloko. In the morning Hoapili secreted the bones of Kamehameha, hidden deep in an unknown cave at Kaloko, perhaps."

Sometimes the bodies of chiefs were placed in small canoes, or parts of a canoe, and hidden in roomy caverns, watched over by devoted guards. This was done at Niu, on the Island of Oahu, where decayed remnants of canoes can still be seen. Sometimes priests were buried in the grounds of their own temples. Nor was burial confined to caves. Pits were dug and the bent up bodies placed therein. Often the

bones were carried out to sea and sunk in deep waters, where the friends felt sure no desecration at the hands of enemies could ever be accomplished. This fear of having the bones of the dead defiled has come down almost to the present time. It is known that monuments erected in memory of certain chiefs rest over empty graves. The bones have been taken away and secreted by faithful family retainers.

At times the bundle of dried bones is kept permanently in the house, always faithfully guarded. This is done that the inmates might be continually reminded of their loved dead.

There was one exception to the general rule of secret burial. This was *Ka Hale o Keawe*, "The House of Keawe," in Kona, Hawaii. It was a thatched building, repaired from time to time, located in the temple of refuge known as Honaunau. This place of refuge answered the same purpose among the Hawaiians as the ancient cities of refuge in Judea. The "House of Keawe" was surrounded by most hideous images. In it were the bones of some of the highest chiefs. Kalani-opuu, the King of Hawaii, in whose presence Captain Cook was killed, requested that his body might be put in this ancient sanctuary. While this wish was being carried out, the breach occurred between Kiwalao, his son, and Kamehameha, his nephew, resulting in the death of Kiwalao, and the enthronement of Kamehameha.

When the bodies of defeated chiefs came into the hands of their conquerors they were sometimes offered as sacrifices in the temple, or the bones were kept to be exposed with derision and contempt.

The six high chiefs of Hawaii at one time rebelled against their king. They were defeated and their bodies captured. The bones were placed in a tall calabash, one of the kind called hokeo, used for packing away clothing. Here the remains of the six chiefs were kept for exhibition while their defeat was chanted. The king's son, Lonoikamakahiki, carried this calabash to other islands of the group and exhibited the bones to the chiefs.

Often the despised bones of the dead were made into fish-

hooks or into points for the arrows used in the amusement of shooting mice.

Kualii, a noted chief of Oahu, was very anxious when death drew near. He charged his most trusted friend to "so hide his bones that mortal man should never be able to desecrate them." The friend pointed to his mouth, and the chief was satisfied. After the body had been dissected and the flesh burned, the friend took the bones away and secretly pounded them into a fine powder. Then he returned and called the chiefs from far and near to attend the funeral feast. In the night he mixed the powder thoroughly through the poi upon which the chiefs were to be fed. When, as a matter of courtesy, they asked him if he had faithfully carried out the dying wishes of Kualii, he pointed with thorough satisfaction to their stomachs and informed them that the bones of the dead chief were well buried.

When Captain Cook was killed, his body was carried inland. The flesh was stripped from the bones and burned. The heart and liver were eaten in the darkness by some children, who claimed that they thought they were eating a part of a dog or of a pig. The hair was given to Kamehameha and the bones divided among the chiefs and priests. The natives say that some of the bones were returned to the ship and buried in the sea, but some were retained and kept in secret hiding places. Some of the bones were sent to England after the coming of the missionaries to the Hawaiian Islands.

At times the bones of the dead were not stripped of the flesh, but the body was bent together in a sitting posture, covered with a wash made from ti-root, which effectually closed the pores of the skin and excluded the air. The body was wrapped in tapa with fragrant herbs, and buried in a grave or deposited in a sitting posture in a cave, or on some natural shelf or niche in the side of a precipice. Food and clothing and other gifts for the dead were often provided, and many prayers offered to the spirit of the dead person. This worship frequently degenerated into sorcery and led to the *pule anaana*, or "praying to death."

One of the earliest written descriptions of ancient methods of burial, was given by the Hawaiian historian, David Malo, and printed at Lahainaluna in 1838. He blends superstition and custom together as the following translation shows. The chapter is entitled, "*No ke Kupapau*," or "Concerning the Dead Body":

"When time has passed and death is near, there is an indistinct murmur in the air—the voices of friends and others, perhaps spirits of the dead or of the living. Thus the sick man speaks: 'Here is some one calling me to go away.' This he repeats frequently until his time has come to die. Then all his friends lament. If he has been greatly beloved they draw out something from the dead body, a finger-nail perhaps, or a tooth, or a hair. If they see something come from the eye or the mouth, such as froth or a tear, this is an expression of the dead person's affection for his friends, and they let the body lie in its place four or five times longer than usual.

"If the body is placed in a canoe or a grave, this is done without many persons seeing it. This is the custom: They bend down the head until it rests between the thighs, then the legs are turned up until the knees are above the shoulders. The joints are then tied fast and the corpse is almost round. If there is anything which belongs to the dead—money, or clothing, or anything else—these things are to be buried with him. Then two or three persons only, not a large number, take the body away secretly. This is done by night, not by day. Then a grave is dug—a round pit like the hole in which bananas are planted. The proper depth is just above the hips. The grave is made smooth and sloping. While digging they take the dirt away in a mat or dish, lest traces should be seen. If there is a new house they dig under it, without the knowledge of the owner. The natives think that if anyone knows the place the bones would be taken away and made into fish-hooks, and the flesh be made food for a shark.

"Some graves are kept very secret, hidden perhaps in a precipice or in a valley. Thus the body is treated at such times. As has been explained before, certain articles belonging to the dead are taken. These are called *he puni*, or 'the

particular things enjoyed.' If it was a pig or bananas, or sugar cane, or anything else especially delighted in by the dead person, that thing is taken to the grave. Some one belonging to the family of the dead man calls out to some ancestor formerly buried in this place: 'O, sir! O! Here comes one of your children.' Then, if the body falls into water and a rainbow arches over the water, this is a sign that there is no friend of the dead man in that place prepared for him. The body is seized and drawn out of the water and carried to a precipice for burial. After the body is secreted, they return to the house and weep and lament in funeral chants.

"There is also another custom. If the body is lifted upon the shoulders of the bearers and the friends are far behind, then the dead one is acting badly. He is holding them back. Then the person who carries the body will not stop, but says, 'Sir! perhaps you love me, but if you act in this way I will break your bones.' When this is said the folded-up body is carried quickly to the burial place. The grave is well prepared, and the body is placed within, the head to the east and the feet toward the west. If the head is placed toward the west there is a mistake, and the malicious ghost comes back. When all is finished those who have carried the body repeat the saying: 'Do not go to live in any other house. Stay here quietly in your own house. Here is food. Here is fish. Here is clothing.'

"There is another fact: Some people when they know that the person is dead, strip off the flesh from the bones, and make a knife or a fish-hook, or carefully hang up the bones in the dwelling house and sometimes affectionately take them down and look at them.

"Then again, the body is taken to the sea and sunk as a sacrifice to the shark-god or to the lizard-god.

"There are secret pits where the chiefs of Nuū, Makaopala, Kaalaohia, and Puukela were buried. These are all on the face of Haleakala on Maui, directly mauka (inland) from Nuū. Hamohamo and Alalakeiki were burial places; some men took a body from Hawaii to bury it at Alalakeiki. When

these men from Hawaii had gone into the pit, a certain kamaaina (native of Maui) came and closed the mouth of the pit with stones and kept the men there until they were dead.

"No man living knows the place of these secret caves. They are lost."

THE HAWAIIAN MELE FROM A MUSICAL STAND-POINT.

Written for the Annual by Benjamin L. Marx.

IT will be my endeavor in this article to show a resemblance between the music of the Hawaiian mele and that used by the classic Greeks in chanting their epic poems. Writers on the origin of the art of music direct attention to the music of primitive races in existence today in order to prove their various theories. There is such a conflict of authority that I was led through curiosity to study the music of ancient Hawaii in the hope of coming to some conclusion myself. I have a theory of my own now, but far be it from me to add to the confusion.

Although the Hawaiian people remained practically uninfluenced by so-called modern civilization as late as 1820, very little is known of the genuine Hawaiian music. I say genuine to distinguish it from the modern thinly veiled adaptations of melodies brought here by foreigners, which are in no sense Hawaiian music. It is a pity that some musician could not have visited the islands during the reign of Kamehameha the First, or earlier, so that some authentic score could have been preserved.

We have to rely largely on references found in the travels of Captain Cook and descriptions of the islands by Lisianski, Captain Byron and others, which are very meagre. Not being trained musicians, these men, naturally, wrote more of the dances. Captain Cook wrote of their using "a solemn kind of song;" also that "the music of these people is of a rude kind,

for the only musical instruments we observed among them were drums of various sizes." Lisianski says that the music of the Hawaiians was much ruder than that of the Society Islands, and that they had neither flutes, nor reeds nor instruments of any other sort, except drums of various sizes. Captain Byron tells us that the Hawaiians "were not entirely destitute of music;" but refrains modestly from telling us of what it consisted. He also says that "it does not appear that they ever used string instruments."

There seems to have been a heated discussion between Captain Cook and his officers as to whether the Hawaiians sang in parts or not. In a foot note he writes: "The circumstances of their singing in parts has been doubted by several persons of great skill in music. Captain Burney, however, and Captain Phillips, of the marines, both of whom have some knowledge of music, are strongly of opinion that they did sing in parts—that is to say, sing together on different notes." The fact that these officers could not tell whether the Hawaiians were singing in unison or not is illuminating as to their "great skill in music."

In a book published by Archibald Campbell, a Scotch seaman who came to the islands in 1810, during the reign of Kamehameha the First, I found the following interesting description of a dance:

"The dances are principally performed by women, who form themselves into solid squares, ten or twelve each way, and keep time to the sound of the drum, accompanied by a song in which they all join. In dancing they seldom move their feet, but throw themselves into a variety of attitudes, sometimes all squatting, and at other times springing up at the same instant. A man in front with strings of shells on his ankles and wrists with which he marks the time, acts as fugal man."

Captain Cook and Lisianski were mistaken in saying that the drum was the only Hawaiian musical instrument, and Captain Byron was mistaken in saying that they did not use string instruments, for they had both wind and string instruments, which can be seen at the Bishop Museum. The "kiokio" was a small gourd, pierced with three holes—one to put against the nose to blow through and the other two for the fingers, some-

thing like the modern "ocarina." The pua, or nose flute, was made of a joint of bamboo, with the nose hole on one side and two finger holes near the bottom. The string instrument was the ukeke, made of a flat strip of flexible wood, with two, three and sometimes four strings of olona, or coco fibre of equal thickness. The strings were not fastened to pegs, but were simply tied at each end of the stick. No bridge was used. One end of the ukeke was held to the player's mouth, while at the same time the strings were struck with a small stick or twig held in the other hand. There is a difference of opinion as to how they produced tones of different pitch. One theory is that they used the teeth in drawing the strings taut thus producing a change of tone; another is that the strings were pressed against the teeth and the change in tone produced by altering the shape and size of the mouth cavity. The effect produced was a buzz or hum something like a Jew's harp.

Professor Brigham suggested to me that as the ancient Hawaiians used a small bow and arrow to kill mice with, they may have conceived the idea of the ukeke from listening to the twang of the bow-string. It is said that the love-lorn swain in ancient Hawaii used an ukeke to serenade his inamorata. The girls must have been susceptible in those days if they succumbed to its dulcet tones.

Music in prehistoric times is supposed to have passed through three stages of development, a different musical instrument being typical of each stage. First came the instruments of percussion; second, the wind instruments, and lastly, the string instruments. It will thus be seen that before the advent of the missionaries the Hawaiians had passed through all three stages and had evolved a musical system of their own of which they may well be proud. When one considers their isolation, the progress they made is a source of wonder. The Greeks are supposed to have caught the idea for their reed-pipe from listening to the wind blowing through the rushes. How did the Hawaiians come to invent the nose flute? It is a matter of doubt whether they got the inspiration from nature.

As I said, the authorities differ as to the origin of music. One theory is that music creates successions and combinations of

tones which have no prototype in nature, and which do not exist outside of music. The nose-flute seems to bear this out. Schopenhauer¹ says "Music is quite independent of the visible world, is absolutely ignorant of it, and could exist in a certain way if there were no world, which cannot be said of the other arts." This view is opposed by the theory which regards music as an imitation of nature equally with other arts. Abbe Dubos says: "Just as a painter imitates the forms and colors of nature, so does the musician imitate the notes, the accents, the sighs, the modulations of the voice—in short, all the tones through which nature herself expresses feeling and passion." Herbert Spencer² says that the sources of music lie in the cadences of impassioned speech, and that it has reacted upon speech by making these cadences more various, complicated and expressive.

Fornander, in his attempt to prove an Aryan origin of the Polynesian family, quotes the Greek word "*melos*" (a song or strain—the music to which a song is set) as being identical with the Hawaiian word "*mele*" (a song or chant). It is undoubtedly a fact that there is a strong resemblance in some respects between the epic poem of the Greeks and the *mele* of Hawaii, both being recitations in metric form of the power and glory of dead ancestors, as well as of living heroes. The exploits of Kamehameha the First, in hand-to-hand encounters, in spear exercises and courage in battle, as recited in his *mele*, compare favorably with those of Achilles at the siege of Troy, as sung in the "*Iliad*." History does not relate, either, that Kamehameha ever sulked in his grass hut, If he did, the *mele* chanters who preserved his fame had the good sense not to mention it.

From what I have been able to learn of the music of the Hawaiian chant accompanying the *mele*, it impresses me as being a regulated declamation rather than a song. Music with the ancient Hawaiians was used only as an accompaniment, and never alone. The *mele* was accompanied by a monotonous chant on almost a monotone.

According to Dr. Marques,³ the Hawaiian instruments, both

1 *Sammtliche Werke*, Vol. 1, p. 340.

2 *On the origin and function of music*.

3 *Music in Hawaii Nel*.—*Hawaiian Annual* 1886.

wind and string, were constructed for giving only two, or, at the utmost, three notes, evidently corresponding to the two or three notes used by the singers. The few notes were varied and rendered attractive only by the changes of velocity and expression, and by the variety of accentuation given on the numerous vowels of the language. Meles were either recited or chanted. "They were mostly on one single prolonged note, occasionally varied by a quavering of the voice on two notes in major second, which could be accurately termed shaking or trilling. * * * I may add that all the Hawaiian meles were very clearly divided into regular phrases of two or four bars of equal time, and that every verse or strophe was made of eight or sixteen bars; and if the poetry was deficient in length, the singers or dancers made up the deficiency by counting time or bars, whilst the movement was being kept up by the accompanying instruments, calabashes or drums or ukeke sticks. Some of the oldest meles were remarkable for changes of time, wonderfully executed. The only time that seems natural to them is 2-4 or 4-4, C, in every shade of velocity."

In order to study this subject at first hand, I have listened to some of the old mele chanters now living at the Lunalilo Home; and, through the kindness of Professor Brigham, curator of the Bishop Museum, I have had the use of records of the meles chanted into the phonograph by these old people. My method was to place my violin under my chin; then place the rubber tubes connecting with the phonograph in my ears, start the phonograph and attempt to catch the musical notation on the finger board of the violin. The rapid changes in tempo from 4-4 to 2-4 and back again were very bewildering, and I was obliged to go over the same record time and time again before I succeeded in gaining any clear impression. The prolonged note used, according to my violin, was B flat below the staff, with an occasional quaver of the voice, producing an interval not in accordance with our recognized division somewhere between C and D flat. I have written this as follows:



One of the clearest records was a mele named, by the Hawaiian who chanted it, "Ka Inoa o Pauahi" (the name song of Pauahi) in honor of Mrs. Charles R. Bishop, founder of the Museum and of the Kamehameha Schools. I was just getting into the swing of this mele, and hoped to succeed in writing it down, when the chanter stopped to cough and clear his throat. I understood from Mr. Brigham that this was very common with the Hawaiian mele chanters. As I could not hope to reproduce a cough in musical notation, I gave up the attempt.

Now to compare Hawaiian music with that of ancient Greece, with special reference to the music used in chanting the epic poems, is a difficult task that I confess I am not equal to, especially as there are no authentic scores of either; but to show the strong resemblance between the two, I quote from an article by R. H. M. Bosanquet, Professor of Acoustics in the Royal College of Music, London:

"Music, in the modern special sense of the word, was with the early Greeks *regulated declamation* to the accompaniment of instruments with stretched strings that were plucked or struck. The classic Greeks used music in rhapsodizing or *chanting with vocal inflexions* the epic poems. Far later, and in imperial Rome, it acquired a more definite form of what is now called melody."

It seems to me that by changing the words "classic Greeks" to "ancient Hawaiians" the foregoing would be a good description of the music used by the mele chanters. It will be noticed that the Greek chant was nearer a declamation than a song; and as melody was a later development, they probably used the same prolonged note with "vocal inflexions," as did the Hawaiians.

It is interesting to compare the Hawaiian mele with the Greek epic poem, although it is outside of the scope of this article. I quote from an article by R. C. Jebb, professor of Greek in the University of Glasgow:

"War ballads were the materials from which the earliest epic poetry of Greece was constructed. By an 'epic' poem the Greeks mean a narrative of heroic action in hexameter verse. The term 'epe' meant at first simply 'verses;' it acquired its special meaning only when '*mele*,' lyric songs set to music, came to

be distinguished from 'epe,' verses not set to music, but merely recited."

The Hawaiians had no such advantages as the Greeks in coming into contact with older civilizations; and the fact that they were able to evolve a musical system of their own and to compose poetry of such merit shows the inherent genius of the race. Very little of the poetry of ancient Hawaii has been preserved, as meles were handed down from generation to generation by word of mouth. They had no written language until the arrival of the missionaries. Think of the memory it required to chant meles hundreds of lines long!

One of the finest examples of Hawaiian verse is a dirge written by the Hawaiian poet, David Malo, with which I close:

HE KANIKAU NO KAAHUMANU.

Miha lanaau i kaukahiki ka newa 'na,
 Ke kaha 'na ka leina aku nei liuliu,
 Liua paia aku nei i Kuanalia,
 I analipo i analio.
 Lilo aku la i ka paia ku a Kane,
 I ke ala muku maawe ula a Kanaloa,
 Keehikulani aku la ka hele ana,
 E malolo kiha ka haku leiohua,
 Ke 'lii i Kuluhiolani aui newa aku nei,
 I lele aku na i ke koho ana o ka pawa,
 I ke anohia kohikohi ana o ka po,
 Ka lilo ana ia la,
 iala, o-i-e.
 Oia hoi, he uwe, he aloha ia oe, a-
 A aloha liua li-o paiauma ka manawa,
 Pakoni hu'i ke aloha loku i ke ake,
 Wehe wahi ka pilipaa o ka houpo,
 Naha ku paa, ka pe'a kua o ke kanaka,
 Helelei, hiolo ka pua o ka waimaka,
 Lele lei-o, lio loko i ka mihi,
 Mihi o ke alohi o kuu haku maoli,
 A kaawale akoo ia 'loha ana,
 Aloha aku o ke aloha haohanau,
 Aole he hoahanau pono no'u;
 He hanauna ku okoa i loi' ka Haku,
 I hanauia e ka Uhane Hemolele,

E ka Makua hookahi o makou,
 I pilikana ilaila e wena aku ai,
 Ilina inoa kaikuwahine no'o,
 Auwe no hoi kuu kaikuwahine,
 Kuu hoa hooikaika i ka luhi leo e, ia,
 iala, o-i-e.

Oia no o oe ke aloha, ka u a' loko a,
 A, aloha oe ke haku kau o ka manao,
 Ke kookoo 'ka leo e ili aku ai,
 E imi pu ai o ka waiwai ka pono e, ia,
 iala, o-i-e.

O ka wahine alo ua waahila o Kora,
 Nihi makani alo ua, Kukalahale,
 Noho anea kula wela la o Pahoa,
 Wahine holo ua haa Nuuanu e, ia,
 Holo a nele i ka pono, ua paoa,
 Ua hihi aku, hihi mai, ke aloha ole,
 Aole pono, he enemy noho pu e, ia.

'Aha aia 'ku la i he lani,
 Ka uhane a ke kino wailua,
 Kino akalau pahaohao,
 Oiwi haona hiona e,
 Haili aka, kino ano lani,
 Hoa anela o ka lani ma,
 Ke luana wale la i ka lani,
 Ua luakaha ka noho ana,
 Ke halelu ia la ilaila,
 Iloko o ka Paredaiso nani,
 I ke ao mau loa o ka Haku e, ia,
 O ko kakou mau Haku no ia,
 O ka Haku mau no ia, oia no.
 O ka manao ia a loko e ake nei,
 E ake aku nei, e, e.

—Davida Malo.

Mei 22, 1834.

A LAMENTATION FOR KAAHUMANU.

Translated by Curtis J. Lyons. Used by Permission.

Ceasing from storm, the sea grows calm and glassy. Like a puff of wind flitting over it, so her spirit glides away to the far regions beyond Kahiki.¹

(1) The word for far-away shores.

She flies; averting her eyes, she fades away in the wild mists of the north-land—the deep, dark, mysterious north.

She has gone from us to the courts of Kane, treading royally the red-streaked path of the rosy dawn; the misty, broken road to Kanaloa.

An ebbing tide flows out, laden with departing wealth.

The chief is turning away, sinking to sleep, drifting away. She fled at the first gleam of the dawn, at the faint ending of the cut-off night. Then was her departure.

Oh, our beloved one! our departed one! our bemoaned one!

The heart beats tumultuously; it throbs within us; it strains us; it breaks the walls around it.

Oh, the pain, the breaking up, the rushing of tears, the falling of the flowers scattered of grief.

We are borne away, carried away; the very depths of us are torn from us by this passionate grief.

Our true liege lady was she, and I grieve. Love as to a sister is mine, yet not to a sister. Yea, a sister, chosen and separate in the Lord, born of the Holy Spirit of the one Father of us all. Thus, thus I feel that she is mine to sorrow for. The precious name, sister, is indeed ours (to use) by dear inheritance. Alas, my sister! My beloved sharer in the sweet labor of the voice.² Oh, my beloved! my beloved! Oh, centre of thought! Oh, centre of thought!

The voice is the staff that love leans upon. With the voice we seek common treasures together, sweet converse together. Gone—Gone—Gone!

O lady, seeking shelter from the Waahila rain of Kona, the cutting rain, with the wind beating against the house gables! O lady companion on the hot, sun-beaten plains of Pahoa! O lady beloved, in the cold rain of Nuuanu! We flee together; there is nothing; all is in vain—empty, forsaken! Confusion all tangled together; there is no more love, no more good; it is an enemy that is now with us. Alas!

The spirit of the shadowy presence, the spirit body is gone. The many-shadowed, the glorified, the transfigured body is beyond—new-featured, heavenly-formed companion of angels. She rests in the rich light of heaven; she moves triumphant. She sings praise-psalms of joy in the paradise of glory, in the everlasting day-time of the Lord. He is our Lord—the everlasting Lord. He indeed, in truth.

Such are the thoughts that burn within me; they burn and go out from me! Thus I pour out my soul, my soul!

—David Malo.

ACTIVITY OF MAUNA LOA'S SUMMIT CRATER.

MADAM PELE, without premonition, resumed possession of her abode at Mokuaweoweo, the summit crater of Mauna Loa, on the Island of Hawaii, in all her splendor, October 6th, 1903, to the delight and wonderment of beholders at all points around the island and on vessels far at sea. Honolulu's first news of the outbreak was received October 7th from the officers of the "Ormsery," who saw the rising column of smoke and steam and the brightening glare of spouting lava at noon time of the day before, accompanied by a peculiar commotion of the water in their vicinity as of a submarine explosion. Tidal phenomena was also experienced after the outbreak along the Kau coast, and at Hilo. At Punaluu, during the night of the 8th, the tide ran out and did not return again till the night following when it came back with a rush, flooding the wharf but fortunately without effecting any damage.

Confirmatory news of Mokuaweoweo's activity was also received during the 7th by wireless telegraph, and shortly afterward by the regular steamers, with conflicting rumors of one or more flows having broken out high up on the mountain, like that of 1899, but in the direction of Kahuku.

Several parties for observation and investigation from this city followed each other by successive steamers, and like parties from Hilo and other points on Hawaii quickly formed and set out for the scene of action. The first company leaving Honolulu sailed on the 9th, taking the leeward route, some of whom landed to form a party from Honoapo, Kona, under the guidance of John Gaspar, others by way of the Kapapala Ranch in Kau. Hilo parties also found the journey by way of the Volcano and this latter course as the best from their side.

During the progress of these pioneer explorers there was little change in the evidence of activity, night scenes of indescribable grandeur in the glare and cloud reflections being observable

from nearly all points of the island, and even from Lahaina and more distant Molokai.

These parties found no flow as had been reported, the activity being confined to the summit crater of Mokuaweoweo. The first party to reach the summit comprised some thirteen persons, mostly from Hilo. This party remained over night at the crater witnessing the continual changes, eruptions and explosions of the liquid formative mass. The first party from the Kona side unfortunately experienced great hardship in their journey through severity of weather in addition to the discomforts of mountain sickness and rough trail, and having to leave their animals some distance from the top to finish the ascent afoot. In the grandeur of the volcanic display which met their view they expressed themselves amply repaid for the fatigue and discomforture experienced, though they were not able to remain at the summit but a few hours. Subsequent parties were more fortunate in meeting no such electric storm to increase the cold and dangers of the journey, more especially as several ladies were among those of each company to brave the hardships of the trip.

The following descriptive accounts* summarizes the various reports given by eye witnesses in the several parties above referred to.

While the exact location of the outbreak confirmed what was first reported, it is not surprising that there were so many mistaken ideas on the subject. The summit of Mauna Loa is very extensive and flat. The activity is in the center. This flatness deceives people from all sides and gives the impression that the eruption must be further down the mountain on the opposite side from them.

The first Hilo party already mentioned, set out from the Volcano House for Mokuaweoweo via Monsarrat's ranch, mounted on horses and mules, with pack animals and supplies. Leaving this latter point early in the day they reached the 10,000 foot level by 2 p. m., where they camped until 7 a. m. the following day when they set forth on their journey over a stretch of lava of

*From the *Hawaiian Star*, *Hilo Tribune* and *P. C. Advertiser*.

intense blackness. Though under a tropic sun the temperature kept falling as the party mounted higher and higher in altitude, the mercury standing several degrees below zero when they reached the summit. The rarified air in the ascent induced mountain sickness with every member of the party, though the excitement enabled each to extra exertion to reach the goal, which they did at 2 p. m. and while before them was spread a scene of awesome grandeur they all threw themselves down on the cold lava at the brink of the crater, rolled up in blankets and suffered tortures of the brain.

Under such difficulties tents were pitched and things made as comfortable as possible. All that night the animals pawed the lava crust within a few yards of the crater's brink, nibbling at times at the food brought along for them, but whinnying continuously for water of which they were deprived three days by the trip.

With the roar as of a tempest at sea, the crater at Mauna Loa greeted the first visitors who stood on the mountain top that night and looked down upon the lake of fire. The roar and pounding of a heavy surf came from the deep cavernous pit of Mokuaweoweo. It was the dashing of a score of fire geysers. They shot their giant columns from two to six hundred feet in height, the whole enormous weight of uphurled lava, red hot boulders falling back again into the seething, white hot lake, with a rumble and a crash that was appalling.

The scene before the party of spectators was one constructed on immense lines. The crater of Mokuaweoweo is about two by three and a half miles in dimension. Its floor is something like a thousand feet from the upper rim. About one mile from where the observers sat with their feet dangling over the lofty rim, was a small inner crater, judged to be one-fourth of a mile in diameter. Within this narrower circle is the lake of fire which does not rest. From its surface shoots the geysers of lava, illuminating the vast crater and the distant walls. These jets of fire play constantly. There is no intermission. The commotion of light, and sound, reflection and echo fills the soul of the beholder with bewildering enchantment. Mountain sick-

ness and the pinching cold are almost forgotten in the presence of the plutonian pyrotechnics.

Over the rim of the small inner crater, the lava has broken and flows out into the larger area, still hundreds of feet below the summit, in a broad red and yellow stream, extending for a mile over the large crater bed. From this moving molten mass all colors are given out from that of yellow molten gold to the fading pink of iron, cooling under the hammering of the forge. Out of the deep abyss, rolling and tossing emerges a steady column of smoke and vapor rising high above the heads of the watchers and losing itself in the clouds. The fierce fires below illuminate these tossing billows of smoke thousands of feet in height. This light is reflected back to the broad black plateau of lava which extends for miles in a flat tableland around the great crater. It is this upper illumination that can be seen from Hilo, the Volcano House and nearly all points on the island. This is the spectacle free to nearly all the inhabitants of Hawaii from their doorsteps and visible from ships that sail the coasts of the island.

The fiery fountains which are the source of the light are hidden within the confines of the great amphitheater of Mokuaweoweo and cannot be seen except by those who brave the trail and climb to the brow of Mauna Loa, over 13,000 feet high.

The party broke their vigil at the edge of the crater the next morning at 7 o'clock and by evening were at the Volcano House, relating their stories. On the down trip, the mountain sickness left every one rapidly, though it stayed with a few until below the 10,000 foot level.

One describes the sight from the summit into the great crater as beyond description. The roar of the mighty fire geysers sounded like the smashing of heavy seas against the rocks. The spouting columns of white hot lava arose in great incandescent geysers to heights of several hundred feet and would fall back as blackened boulders and huge chunks of congealed cinder. The impressive grandeur of the scene was overwhelming. Speechless we stood and gazed. Indescribable feelings kept pace with the indescribable scene before us. As for myself, I did not attempt to control the emotions stirred by the mighty panorama of fire

before me. The sublimity and awful power of the scene brought the tears to my eyes. I cannot attempt to describe it.

The trip is not thought by some to be a hard one, as one of the party was a lad only eleven years old who stood the trip as well as any. If a horse is able to stand the trip, you can mount at the Volcano House and ride to within six feet of the edge of the crater without getting off. A lady who can ride a horse can make the trip as well as a man. From Monsarrat's place up and back the party made the trip at a cost of only \$35 each. Each man had a horse. Two pack animals carried provisions and extra blankets. At the very verge of the crater we procured good ice water from the lava cracks and if we had had buckets, we could have watered our horses.

One of the most impressive things of a trip to Mauna Loa is the absolute desolation and isolation of a man at the summit. Around you is the black disc of the lava plateau. The world is beneath the clouds which are beneath you and invisible below the blackened circumference of the plateau edge. Only our outlook proved to us that we had not been transported to a black island floating through cold space. Through a jagged fissure to the north of us we could see the tip of the bald head of Mauna Kea which is a few feet higher than the mountain of fire. This evidence that we were still on Hawaii was comforting.

The present eruption is further north in the bed of the big crater than the last one. The lava is flowing in large quantities over the rim of the inner crater and new cones form, disappear and reform again while you watch it.

The first Kona party, consisting of six, with their guides, give the following account of their experiences and observations: Starting at 8:30 a. m. from Napoopoo, the government road was left a little before reaching the Bruner place, taking the trail leading mauka, passing through dairv land of J. D. Paris and J. Greenwell. The first day brought us to the last Greenwell's dairy, where camp was pitched. Very little ground was covered the first day.

From there, the next morning, the party proceeded mauka, reaching 11,000 feet of altitude at 3 p. m. A heavy dense fog

overtook us here so that it was impossible to make much headway. Darker and darker it became, and a terrific hailstorm began to beat down pitilessly. It was so dark from the dense fog that one could not see more than five feet ahead. This caused the guide to follow a wrong pahoehoe flow which before 30 minutes had been traveled landed us into an aa flow. Here the tent was pitched to avoid further unpleasantness and an effort made to regain the right trail but without success. Again and again a pahoehoe flow was followed up but only to land us in aa. Exhaustion overtook one of the party and the tent had to be pitched. Those sufficiently strong, after making everything as comfortable as circumstances would permit, made another endeavor to locate the trail but without success, returning to the camp to seek shelter from the hail that was falling and the cutting wind that was blowing. The reflection of the glow was at all times visible and looked deceptively close. The next morning those who had not been affected by mountain sickness started out on foot shortly after 4:30 o'clock to make the crater.

Retracking with the chances of running into another aa flow which is impassible by animals was not considered wise. What seemed to be but a mile or two proved to be six miles. Those able, leaving the sick ones to mind the mules, reached the top after the most fatiguing walk experienced. Ridge after ridge of pahoehoe was climbed only to see another rise and with no apparent result. The crater, judging from the smoke visible, looked as far away as ever. A last and final attempt was decided on to mount that ridge and no further as all were nearly exhausted. There was the sight to behold. The crater had been reached at last. Those trailing picked up courage at the words "At Last," and there we were. We made the southeast top after two and one-half hours of extremely hard traveling.

The sight was simply indescribable. Columns of fire from 40 to 100 feet were playing, now here, now there. We counted about thirty fountains; one fully formed cone nearly 75 feet high in about the center of the crater and one forming a little to the southwest of it. There was smoke and steam every where in the crater, but the principal eruption was in a line running through the center of the crater of Mokuaweoweo from the southeast to

northwest. The entire crater was bubbling and the molten lava covered the entire floor of the crater which has risen from the thousand foot mark to the seven hundred, thus filling in 300 feet.

The greatest sight was after the fully formed cone, which only spit fire from the center, caved in. Here and there, the volume of fire would be greatest in turn, lessening that of the other fountains. Finally the fully built cone showed more activity and before appreciation of the grand display could be voiced, it crashed the northwest portion causing an awful rumbling and trembling. The spectacle seemed to be arranged especially for us. Many cave-ins must have occurred lately as there are still evidences of land slides. Cracks two to three feet wide run from 20 to 30 feet away from the top and will soon have to fall in as the foundation below is disturbed.

The entire bottom of Mokuaweoweo which is about two miles across and three and a half miles long is one mass of molten, steaming lava. The center of activity is in a line running from southeast to northwest. Cones are constantly forming and keeling over, and in this process filling the crater. The bottom has risen to about the 700 foot level. During Dr. Guppy's visit in 1899 it was fully 1000 feet deep. The doctor was the English scientist who was sent out here to study the volcanic formation of these islands, and spent over three weeks on Mauna Loa. The crater was dead then and was fully explored by him.

The whole bottom is now one molten mass, for when preparing to take snap-shots we had the particular pleasure of seeing the cone at the southeast end which must have been forming for days cave in at the northwest side and the rushing lava seek its level with the rest. At times here and there, the fiery mass would be centered and shoot with giant effort hundreds of feet into the air. Of the thirty fountains playing at different times, all would lend help in this united effort and recede for the time being, then all would flare together, as it were. Many and loud were the explosions that were caused by the fierce snow fall as it fell into the molten lava, was melted and burst into super-heated steam. These explosions could be heard for miles.

Many land slides must have occurred. During our stay one was looked for, as there was about a 50-foot belt along the edge of the crater, separated from the crest by a crack about five to ten feet wide. The least disturbance below would have caused a cave-in.

The sulphur and smoke cloud hangs very heavy over the crater. A straight column rises many hundred feet high and then spreads, assuming the shape of an umbrella. There is no difficulty in making a descent into the crater, down to the bank formed in 1899, so far as the heat is concerned. It is said though that great danger accompanies such a descent. The column of smoke may be disturbed by a heavy wind or other disturbance and in such a case mean death to those enveloped.

We spent two and a half hours up at the top, always seeing something new. Many pictures were taken.

Our return was not so hard and camp was reached after an hour and a half of good traveling, though we found that in the fog we had gone too much to the right. On arrival one of the guides who had remained with the sick one at the camp had coffee ready for us and horses saddled and packed; no time was lost as we wished to make the edge of the woods below before dark. We left the 11,000 feet level at 11:30 a. m. and proceeded downward at a brisk walk, the animals feeling very cold and eager to walk. Hardly had we descended a thousand feet when the sky darkened and a most terrific snow and electrical storm was upon us. The hail was so pelting and heavy that it hurt our hands, although we wore woolen gloves. The mules refused to move and before many minutes the ground or lava was white with snow. The lightning was vivid and hissed dreadfully, followed almost instantly by tremendous thunder. We found no shelter and were almost frozen stiff. On and on we pushed and the lower we got the less of the storm we saw. Dangerous as the roads had become we made all possible speed. After an hour and a half the storm's fierceness was broken and from there the homeward journey was uneventful.

At the 8000 foot level those affected by mountain sickness recovered. The down trip took exactly 14 hours. No stops were

made. We went from where we camped to Napoopoo, arriving this morning at 1 a. m. The entire trip took us three days and three nights. About fifty miles each way would be a fair estimate.

Here at Napoopoo the concensus of opinion is that the trip made was remarkably fast and that we were, taking all in all, the most successful party that has attempted the trip. All was due though to the wise and clever guidance of John Gaspar and his son Joe. They know every inch of the territory and have been to the top seven times.

The last Kona party to be heard from at this writing, stated to be the largest that has yet made the ascent to the summit crater, comprised seven women and fifteen men. One of the party considers the sight at the crater unequalled by previous volcanic displays on this island. He says he has seen more fire in Kilauea, but not so much spurting and spouting. He never before saw so many fountains and lava geysers pounding the surface of the fire lake into a maelstrom of action. From the Kona side the fire fountains are much closer to the observer than from any other. The chief activity is about one-fourth the distance across the big crater from the Kona side.

The indications of an outbreak and flow on the side of the mountain, as in former eruptions, seems less likely now to occur than was at first anticipated. The activity at this writing, after a month's duration, being still confined to Mokuaweawe and with Pele's usual erratic moods intense in its evidence of volcanic grandeur at one time and diminishing splendor at another. The fact of there being no rent on the mountain side whereby the molten lava would be drawn away from the summit lake may account for the longer duration of Mauna Loa's activity.

This experience also gives us further evidence of the summit volcano having no connection with Kilauea, since the latter has remained quiescent throughout, and is satisfied apparently to simply indulge in one of her long smokes; at times dense in its blackness, but for the most part light and airy, and of varying hue.

MOVEMENT FOR TOURIST TRAVEL.

By E. M. Boyd, Secretary Hawaii Promotion Committee.

EXPLOITATION of Hawaii as a resort for visitors and a home for those whose experiences with cold and frost has turned attention to milder climes, was undertaken August 1st by joint committee, consisting of members from both the Chamber of Commerce, the Merchants' Association and the business community at large.

The discussion of this work was begun by members of the Merchants' Association upon the organization of that body, and there was never any let-up in the efforts made to secure some adequate basis for the work. It was in June, 1902, that a committee consisting of J. G. Rothwell, J. F. Humburg and William Lishman, was appointed by President Macfarlane of the Merchants' Association, to draft a course of action. This committee reported the next month, outlining a comprehensive plan for progress. The report proposed the raising of a fund by the levying of a tax upon imports and exports, and although it was generally accredited as most profoundly drawn, there was no final action under it. The leaven had begun to work, however, and early in December of that year there were earnest discussions of this matter in both commercial bodies.

Finally there was formed a joint committee, consisting on the part of the Chamber of Commerce of C. L. Wight, G. P. Wilder and F. J. Lowrey, and on the part of the Merchants' Association of P. R. Helm, F. L. Waldron and W. W. Hall. This committee, with the officers of the bodies, met to discuss the proposed plans for action, and after some spirited consideration of the many suggestions which were put forward, it was decided to recommend to the two bodies that there be

formed a permanent committee, to consist of two members each from the trade organizations, and one member at large, from the business community. The recommendations advocated the procuring of headquarters and the maintenance of an office for the spreading of information, the entertainment of travelers when in the city, and the furnishing of all conveniences for tourists. This report was adopted, and then began the long and somewhat tedious wait for the funds necessary for the successful starting of such work.

It was not until after many conferences that the committee was formed, and the body organized. Vice-President Cooke of the Chamber of Commerce named Messrs. C. L. Wight, of the Wilder's Steamship Company, and James A. Kennedy, of the Inter-Island Steam Navigation Company, as the representatives of that body, and President W. W. Dimond, of the Merchants' Association, selected Messrs. W. W. Hall, of E. O. Hall & Sons, and J. A. Gilman, of Castle & Cooke, to act for that organization. These gentlemen formally selected Mr. F. C. Smith, of the Oahu Railway and Land Company, as the member of the committee at large, and as well the chairman. This was in February, and immediately the campaign began. Governor Dole, recognizing the need for the carrying on of the propaganda, recommended to the Legislature that a sum be appropriated for advertising the resources and advantages of the Territory, and this was done, after some hard work, \$15,000 being set aside for the purpose.

In July, 1903, the time seemed to have arrived when there was a fair prospect for success with the funds in hand, and an outlook for support from the business community. The organization was perfected by the selection of a secretary, and a room was leased in the Alexander Young building and fitted for use as office and reception room. The preparation of copy for booklets, and for use in the magazines and newspapers which had been selected as advertising mediums was undertaken with vigor. This was begun actually on August 1, and two weeks later arrangements had been perfected with a New York advertising agency for the placing of full and quarter

page advertisements in the leading journals for the quarter commencing October 1st.

This work has progressed since that date, the advertisements being varied enough to attract attention, and being so placed that there has been secured circulation to some 7,000,000 readers for the quarter. That it has been effective is evidenced from the fact that of the first 100 letters received by the committee at its headquarters, there were represented fifteen states and two territories. England and Germany contributed later, and almost every state of the Union is now on the list of those which have asked for matter relative to Hawaii.

When the committee got to work, Secretary of the Territory George R. Carter placed in its hands the expenditure of the appropriation by the government, under his approval. Territorial Commissioner of Immigration, Theo. F. Lansing, was invited to join the committee, and has since served with it earnestly. The matter of printing came up early and a general folder in edition of 250,000, was printed, as well as an initial booklet, called "Beauty Spots of Hawaii. Business Hawaii," and a most important contribution to the literature of the country, "Hawaiian People and their Legends," were printed later, which, in conjunction with pamphlets telling what is to be seen in Honolulu, and bearing on the agricultural possibilities, gave to the committee a total of about 500,000 pieces of printed matter.

Early in its work the committee found that the railroads and steamship lines were heartily in accord with its work, and the assistance received from that quarter has been of the very first order. The transcontinental lines have given of their space in folder and other advertising, to tell of the advantages of a tour to Hawaii, and the Eastern railroads have used their general folders and newspaper space as well, to describe the beauties of the islands. The folders of the committee were generally distributed through the agencies of the railroad lines, and they have thus given publicity at comparatively small expense. The booklets of the committee have been spread over all the earth, for the steamship lines gave them a chance to reach travelers in China, Japan, the Indian Ocean

and Australia, while the agencies in Europe were kept supplied so that it is known that the publications have found readers in every land where travel is sought.

With the lapsing of the Territorial appropriation the plan of work of the committee was carefully presented to the business community, and its future now depends upon its acceptability to the public. What has been done has made known the name of Hawaii where before it was unknown, or at least unappreciated. That such labor may bear fruit is to be expected, if the usual course is run. At least the men who do such things in the United States at large, consider that the inauguration of the work was along lines which in the past have led to success.

OUR THIRTIETH ANNIVERSARY.

HIRTY years of Hawaiian progress; the faithful record during the most active period of her commercial and political development; this is what the present number of the Hawaiian Annual stands for. Not that it is a summary of all tables or information of prior issues so much as that it has been privileged to be a continuing witness through all these years of exceptional progress, and to chronicle the same.

This publication, designed as "a hand-book of information on matters relating to the Hawaiian Islands, original and selected, of value to merchants, tourists and others," popularly known as "Thrum's Annual," and recently termed the "condensed encyclopedia of Hawaiian information," was first issued in January, 1875, for that year, and has appeared with marked regularity ever since. The first number consisted of 45 pages of tables and reading matter; this has steadily increased until now it exceeds 200 pages.

The object in establishing the Annual was to disseminate reliable information pertaining to these islands such as strangers naturally seek, the idea being suggested to the compiler on a visit abroad in 1874 through the many enquiries upon the political, commercial, social, educational and ecclesiastical status of

the country. It has continued in the lines of information for which it early became the recognized authority with but little divergence, indicative of a well covered field, in which its statistical feature has gained it wide recognition, embracing as it does tables of import and export values, current and comparative; government finances; census returns, latest and comparative; health and school statistics; meteorological tables; inter-island distances, by sea and by land; plantations, mills, stock ranches, etc., all of which tables have careful revision and are brought down to latest official data each year.

Its special articles have embodied subjects covering history, reference, research, reminiscence, commerce, agriculture, education, flora and fauna, folk-lore, science, geology, volcanic changes, labor, immigration and public improvements, many of which have been contributed by our best and most careful writers, each in their own special field of thought. In this way has the reputation of the Annual for reliability been built up and maintained. Among the numerous articles that have appeared, those of historic research and reminiscence form so large a part as to give the Annual rare value as a reference work, as continuous calls for complete sets, or for back numbers to complete files, testify.

The retrospective feature of the Annual was begun in 1878 and forms now a complete current history of the political, commercial and educational progress of Hawaii for the past quarter of a century.

The question is asked what has been accomplished by its publication? In a certain sense the conundrum is a difficult one to solve, for the compiler and publisher will never know the extent of the benefits to individuals, to business, or country by his labors in this dissemination of reliable information of "the land we live in," so marked in contrast to the boom hand-books of many places seeking to attract public attention. It has creditably advertised Hawaii, its attractions of scenery, climate, healthiness; its possibilities, progress and development, and has duly presented the opportunities for, and results of, enterprise within her borders. It has dealt with her natural and traditional history and rescued from possible oblivion not a few hitherto unchronicled facts of Hawaiian antiquity. It has garnered and placed in its store-house,

for handy reference, tables and information of interest and helpfulness to all readers, here or elsewhere, that is of increasing value with succeeding years.

Unquestionably the Annual has aided many, journalists and others, toward a better knowledge of Hawaii, and liberal use of its educational benefits in this respect have been made at times by the government, here and abroad. Furthermore, there are a number of residents in the islands who were led hither by the Annual while a far greater number, contemplating a change to these shores, were made agreeably familiar with both land and people so that they did not feel, on arrival, as "strangers in a strange land." There is also invested capital in our industries and securities that was largely influenced hither through the Annual's exhibit of sound business conservatism amid phenomenal commercial progress, and field for further development.

In testimony of the quiet and helpful influence of this publication to the better understanding of the business interests of the islands, the officers of the United States Exporters' Association of New York, composed of leading merchants and manufacturers, a few years ago, acknowledging the value of the Annual to the various manufacturing interests they represented, said, "they wished in vain for such hand-books of comprehensive information from various countries and colonies with which they desired trade relations."

Liberal use is continually being made of its statistical tables in different parts of the world, many being embodied in various official reports at Washington, and at least two of the recent books published relating to the islands, Prof. W. F. Blackman's "The Making of Hawaii," and Caspar Whitney's "Hawaiian America," very courteously acknowledge the value of the Annual.

It is a mistake, however, to look upon the preparation and usefulness of this publication as for foreign fields only. Acknowledgments from the local press and patrons throughout the islands, and recognition and use of the Annual in official circles, places of business, and many homes throughout the land for handy reference, certify to its value and public service.

Unlike more recent publications for tourist attraction, the Annual has never sought legislative subsidy nor government or other financial aid, nor in its thirty years has a single dollar been received for the write-up of any business undertaking or firm, nor even for the illustrations for the same. This would not be mentioned did not simple justice require it in refutation of an assertion that doubtless the publisher was paid well for his historic writing of certain concerns, recently published in the Annual. Fortunately we have been able to present historic facts and deal with subjects of commendable progress in an unbiased manner, which could not have been the case if writing for a monetary consideration. The same is true in regard to the Annual's treatment of any enterprise or commercial exhibit.

In this respect and in a business sense the publisher of the Annual has done more for others than for himself. Comparatively few people realize the amount of time and labor involved in a work of this character in this field of unorganized statistical bureaux, except that of the Customs House, the Weather Service and recently the Board of Health. Nevertheless, it is a matter of much satisfaction that it proves as helpful as designed, towards the success of which we would gratefully acknowledge the courteous aid of various departments of the government, both here and at Washington, as also business houses and others.

THE next issue of the Annual has the promise of several interesting and valuable papers, covering island reminiscent history, reference, research, folk-lore and other subjects, and possibly a newly revised Chronological table of important Hawaiian events, brought down to date, as has been requested of us for convenient use in court proceedings, though tables of this character appeared in the Annuals for 1876 and 1899. Selections from the Journal of an Early Merchant-Official of Honolulu stands over, to give place to Mr. Gilman's paper of like period, written for this issue.

ROCK CARVINGS OF HAWAII.

Some Possible Traces of Pre-Historic Hawaiians.

Written for the Annual by A. F. Judd; illustrated from drawings by Allen Dunn from Author's photographs.

THE ANCESTRY of the Hawaiians has been the subject of much speculation and study. Students of philology have proved the relationship of the Hawaiians to many islanders of the Pacific. Were the ancestors of the Hawaiians the first settlers of these Islands? Did any one precede them, and if so, where did these pre-historic Hawaiians come from? Archaeological investigations have brought to light several monuments of which the Hawaiians have always disclaimed the making. The fish pond in the land of Apua at Kualoa on the Island of Oahu is a notable example, and others might be mentioned.

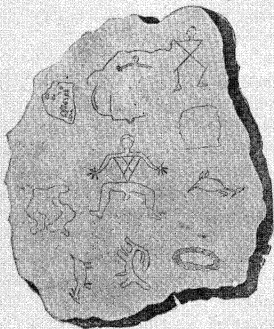
It is the purpose of this paper to describe certain rock carvings or pictographs which I have examined, in the hope that some one more qualified than I may be able to tell us who made them.

Gilbert Farquhar Mathison, in his "Narrative of a Visit to Brazil, Chili, Peru and the Sandwich Islands, during the year 1821-22," describes the famous stone platter of Kalo Aikana at Halemanu, Waialua, Oahu, in the following words: "I had expected to find a monument of great magnitude; instead of which I saw nothing but a flat stone, resembling an English tombstone, about five feet broad by six or seven in length. The surface was very smooth and upon it I discovered many rude representations of men and animals, similar to those which have from time to time been met with and described among the Indians of America. Many were defaced,

and in others I could trace no resemblance to any known objects, either animate or inanimate: the stone itself was very imperfect, pieces of it having evidently been broken off on different sides, which I learnt from the guide had been done by the neighboring inhabitants in order to convert the materials into knives, mirrors, pots, and other domestic utensils, which were always fabricated from stones in former times, pre-

vious to the introduction of iron by foreign traders. Annexed is a drawing, taken on the spot."

This rock is now lost to us and perhaps it would be difficult to find even its former location. There is a modern legend to the effect that the Kamehameha school boys, while camping in the vicinity of Halemanu several years ago destroyed the stone in order to rid the land of the one evidence of cannibalism.

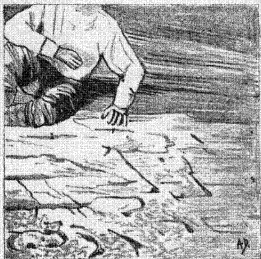


I have examined rock carvings on Molokai in two localities, one near Momomi and the other near Kalae; on Oahu near Koko Head; on Kauai near Koloa; and through the courtesy of Mr. C. M. Walton I have had the opportunity of examining casts of pictographs from Pahala in the District of Kau, Hawaii. Reliable information has been given me that similar markings exist at Naalehu in Kau, at Honaunau in Kona and at Kii on Niihau, but these I have not been able to examine. Uncertain accounts have also been given me that similar carvings are to be found near the heiau of Koki at Kapoho, Puna, on the Island of Hawaii. All the drawings here shown are made from photographs. The carvings are all cut in to the

rock, although by an optical illusion as to the shadows some of them resemble bas reliefs.

Drawings 1-5 show certain of the carvings on Oahu to be found near Koko Head.

In some of them there appears a foot rule. The pictographs are to be found on the floor of a small cave on the coast at Maunaloa, about half way between Hanauma and Kokolipile. The cave has a low ceiling and a sharply inclined roof of hard tufa. Photographing the carvings is not an easy task in consequence.

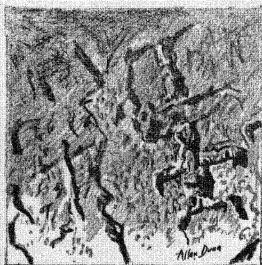


(1)

The surf at high tide washes into the mouth of the cave and the lower carvings are much corroded. There is no evidence now that the cave was or was not walled up. The figures are

in three sizes, respectively six, nine and fifteen inches in length. In some of the figures an attempt has been made to show the contour of the thigh and calf; the knee is small and in some figures the toes and heels are shown.

All of the arms save in one figure point down. This one figure has its right arm raised and has a head dress of four spikes radiating from one side of the head.

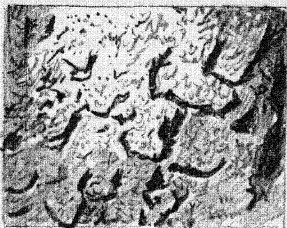


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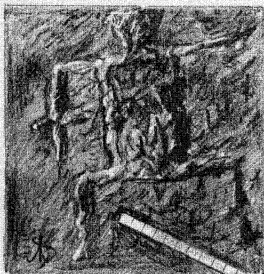
Some of the figures represent neither men nor women. For the writer to say what they do represent would

be speculation on his part. In all of the localities described in this paper the majority of the carvings represent persons, but along with them are found other carvings which are not easily explainable. These carvings will, I believe, give more of a clue to the makers of carvings than the human figures, when the expert archaeologists get to studying them.

All the carvings are three quarters to one-sixteenth of an inch deep. There is no evidence that the cutting had been



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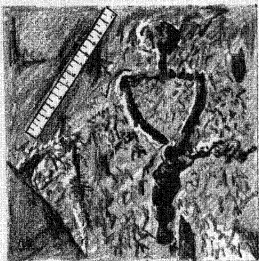
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made with an iron instrument. The bodies of several of the men are square, all the interior of the square being removed evenly, as in drawing 4. The storms have swept all through the cave and there are but few of the inscriptions left, but they probably at one time covered the entire floor of the cave. The area covered by the carvings is about six and one-half by eleven feet.

Several figures may be of four-footed animals. Particularly interesting are two straight, parallel cuttings, each five inches long and nearly an inch wide and a couple of inches apart. I call attention to them as similar markings occur at Momomi on Molokai.

This cave was first noticed in January, 1899, by a party of sight-seers led by Dr. Carmichael, of the United States Quarantine service, and an account of the pictographs appeared in Thrum's Annual for 1900.

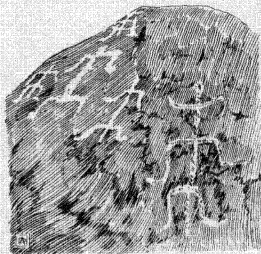
This is the only cave on the coast between the landing beach of Hanau-ma and that at the foot of Kokolipelipe and is near the gorge at the foot of Koko Head, where fresh water can be found during most of the year. About thirty carvings can be distinguished. All of these but



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two are on the floor. Of these two, one is on the ceiling and the other on a shelf on the side of the cave nearest the sea.

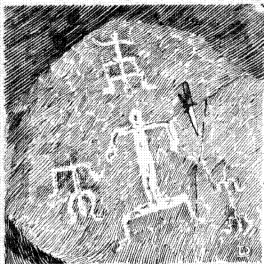
The Molokai inscriptions near Kalae are located on huge boulders on the top of a conspicuous hill called Nanahoa, not far west of the trail leading down the pali to the leper settlement. These figures are shown in drawings 6—12. On this same hill is the large stone described in Professor Brigham's "Ancient Hawaiian Stone Implements," page 33, as once venerated under the name of Kaulunānāhoa. This is the only hill in the vicinity which



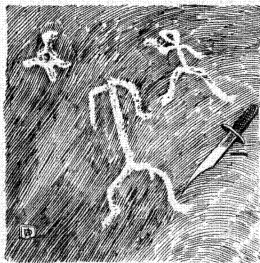
(6)

has this crown of stones, and is conspicuous now on this account. Formerly, in all probability, the forests covered this as well as the neighboring hills.

In the summer of 1894 I was shown to this interesting place by the Meyer brothers of Kalae, who informed me that the late Dr. C. M. Hyde had shown them the inscriptions. I visited the hill again in the summer of 1901, when I took the photographs from which the drawings were made.



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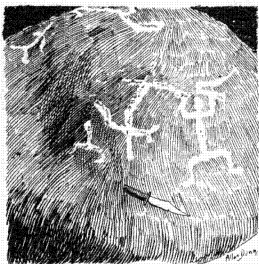
(8)

The boulders are covered with moss and lichens, and in order to get a photograph to show the carvings, I rubbed the cuttings with rotten stone. The hunting knife shown in the picture is ten and one-fourth inches long, blade and handle. Unless one were on the watch for such things, these pictographs, in their present condition might not be noticed. The

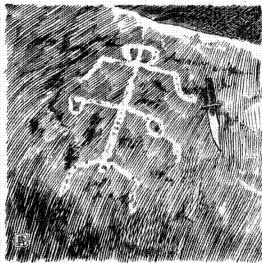
boulders are composed of hard basalt and the carving is shallow. The figures are most of them larger than those found on Oahu.

Near the base of one of these boulders is a set of three parallel ridges cut into the stone, like the ridges on a washing-board, only deeper. Here no doubt the worker or workers sharpened their stone chisels while engaged in making the figures.

The other Molokai carvings are on the slope above Momomi on the western end of the island.



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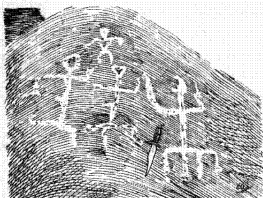
(10)

They are very much obliterated and have almost been destroyed by the cattle and horses passing up the ridge where they are. They are cut in sand stone. Enough of their outline remains, however, to show their resemblance to the Kalae markings. Here also are found the foot-prints, so-called, which appear to me to be carvings simi-

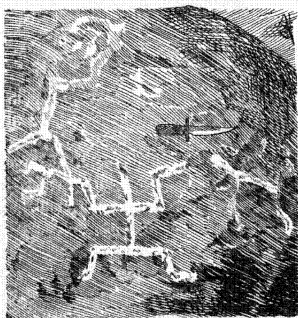
lar to the parallel cuttings noticed on Oahu at Kokolipele. Mr. Waldemar Lindgren, of the United States Geological Survey, in paper No. 17, of that department, on the water resources of the Island of Molokai, recently published refers to these foot-prints on page 16, with the remark that, "The

real character of these foot-prints may as yet be left an open question."

Foot-prints are not left side by side on the sands with no foot-prints leading to them. The prints look as though some one had deepened and enlarged the parallel carv-



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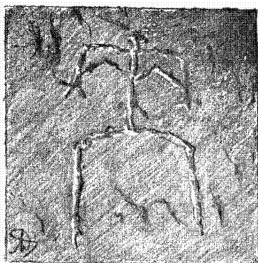
(12)

ings. The fact that these parallel carvings appear with the other rock carvings leads me to believe that there is some connection between the two, especially as they appear on two different islands. I offer no explanation as to what they may mean. They certainly are not foot-prints.

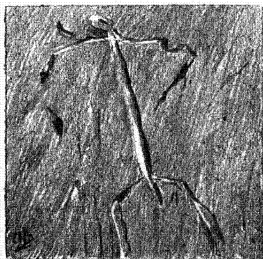
The rock carvings on Kauai are shown in drawings 13-17. They are found on the sea coast, not far from Koloa, on the beach called Keonelo. These have been fully described by Mr. J. K. Farley in *Thrum's Annual* for 1898, and I will not attempt to repeat the general description which he gives. To

my mind these carvings are by far the most interesting of all that I have examined, because of their size and because of their location. The largest figures are seven feet long and they are all located on a sand-stone ledge practically at the sea level. Let me quote from my notes made shortly after a visit to Keoncloa:

"I visited the beach of Keoncloa first on June 16, 1900. I asked a native fisherman, whom I chanced to meet, to show me where the "Kii" were, and sure enough, two pieces of the ledge described by Farley were free from sand, and on both of them I could see parts of carved figures. I rode my



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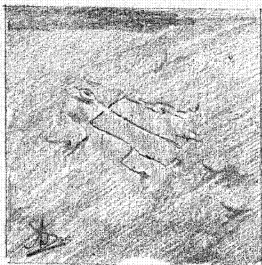
horse into the water to get a good look at those that were exposed. They were almost continuously covered by water, although the tide was out. My first impression was, "How similar to those of Oahu and Molokai!" A week previous there had been a very high surf and I could see that the regular line of beach would have covered the entire ledge several feet with sand. A week

later, on June 23rd, I rode to Keoncloa again, in the afternoon, when the tide was low, taking a small camera with me. I knew from the Koko Head experience that the pictures must be taken either early or late in the day, in order that the carvings might

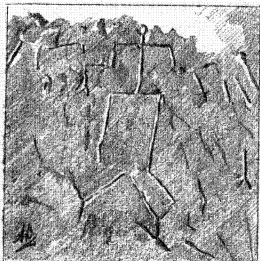
be in shadow; otherwise they would not show. I reached the beach at 3:15 p. m., but the tide was too high, the sand and water being all over the ledge. The beach had the same exposure as that near the cave on Oahu. The ocean current that brings the Oregon and Columbia River pine trees to us, sweeps directly upon it, and then starts over to Niihau. Back of the beach proper is a narrow

line of sand hills, covered with the usual grasses and vines. Farley says that under these dunes are the other rocks covered with figures, of which the natives told him. With my camera held tightly in both hands I waded into the water to try to photograph the patches of the ledge which were exposed and cleaned of the sand by the receding waves. I could feel the sand stone ledge with my feet. It was covered all the time with from two to six inches of sand and water. The beach is not protected by a reef

and as it is rather flat, the surf, even at low tide, runs well up on it, and the sand and water recede after each wave with great force. Often I was wet to my middle, and once just kept myself from being washed out to sea. I found it useless to try to clean the sand off from the rocks, and so had to content myself with biding my chance and pressing the button at the best moments.



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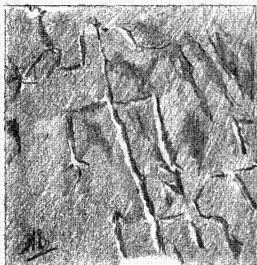


(16)

I succeeded in getting several photographs by riding my horse into the surf and photographing from his back."

It seems to me to be improbable that any one, working with stone implements, cut these figures with the sand stone ledge in its present position. The subsidence which has occurred along this coast may give us some idea of the antiquity of the markings. The ledge is of sand stone, 110 feet long by 25 feet wide. It is the testimony of the kamaainas that only at rare intervals is it uncovered of sand and then only when the ocean currents sweep in along the shore in a certain way. Mr. Farley counted sixty-seven figures in June, 1897. I saw less than half of that number exposed, some of which Mr. Farley had not seen.

Mr. Farley got the following story from an old woman named Kauila, who had lived for many years in the vicinity. She said, "I first saw the pictures when I was about thirteen years old. That was in

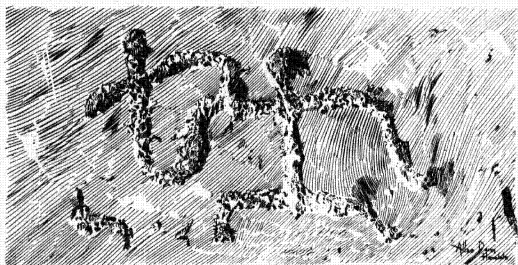


(17)

1847. I went to see them with my school teacher and his other scholars and two Roman Catholic priests. My teacher's name was Alexandro, a Frenchman. He was the first Roman Catholic priest in Koloa and built the Catholic Mission buildings. We saw all the picture rocks exposed. You have only seen a part of them to-day. Another ledge of fifty to one hundred feet further inland under the sand, has pictures of birds, fishes and a canoe and strange animals cut in it. The animals are not like anything now seen. They have bodies like cattle, heads and ears like pigs, but no horns. The canoe has no outrigger or figures in it. The priest went home with me from Keoneloā and talked with my father, Walewale, and my grandfather, also with a number of other old natives, about the drawings. They had all seen the

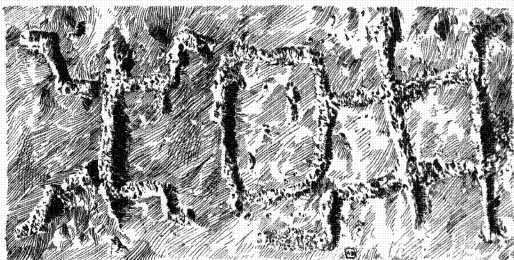
pictures, but had never heard who cut them or why they were done. The oldest folks said that their fathers and grandfathers had told them that the pictures had always been there."

Drawings 18-25 show the carvings from Pahala, in the District of Kau, on Hawaii. The photographs are of plaster casts, each cast being nine inches square. These carvings were discovered by Mr. C. M. Walton when he was manager of the Hawaiian Agricultural Company at Pahala. They are found in three caves not far apart, about a mile mauka of the mill and about



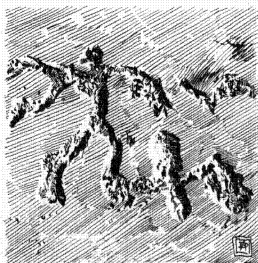
(18)

five miles from the sea coast, directly inland from the hill called Kameha, where there is the only landing beach between Keauhou and Punaluu. The carvings are chipped on the floor of the caves and a few on the ceilings, generally where pahoe-hoe has cooled leaving a very smooth surface. The carvings look as though they were made with tools as broad as a man's finger and not sharp, evidently a stone chisel of some sort. They look very old and corroded by water drippings. Casts were only made of the carvings of human figures. How many carvings exist I do not know.



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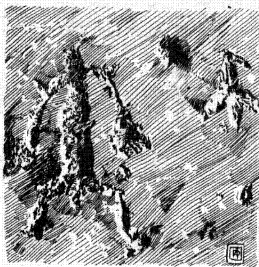
In the appendix to Volume IV of Ellis's *Polynesian Researches*, I find the following: "In the course of our tour around Hawaii we met with a few specimens of what may, perhaps, be termed the first efforts of an uncivilized people toward the construction of a language of symbols. Along the southern coast, both on the east and west sides, we frequently saw a number of straight lines, semicircles or concentric rings, with some rude imitations of the human figure cut or carved in the compact rocks of lava. They



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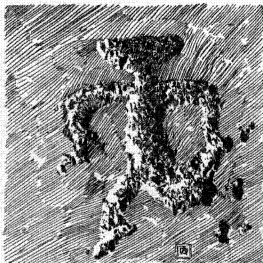
did not appear to have been cut with an iron instrument, but with a stone hatchet or with stone less frangible than the rock on which they were portrayed. On inquiry we found that they had been made by former travelers from a motive similar to that which induces a person to carve his initials on a stone or tree, or a traveler to record his name in an album to inform his successors that

he has been there. When there were a number of concentric circles with a dot or mark in the center, the dot signified a man and the number of rings denoted the number of the party who had circumambulated the island. When there was a ring and a number of marks it denoted the same, the number of marks showing of how many the party consisted and the ring that they had traveled completely around the island, but when there was only a semi-circle it denoted that they had returned after reaching the place where it was made. In some of the islands we



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have seen the outline of a fish portrayed in the same manner to denote that one of that species or size had been taken near the spot. Sometimes the dimensions of an exceedingly large fruit, etc., are marked in the same way."



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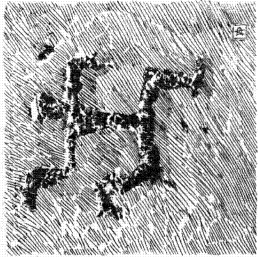
I have not found in any of the localities described in this paper any of the semi-circles or concentric rings, carvings of fish or fruit as suggested by Ellis. Ellis himself implies a doubt in his mind that the Hawaiians made these carvings described by him, when he goes on to say, "With this slight exception, if such it can be called, the

natives of the Sandwich and other islands had no signs for sounds

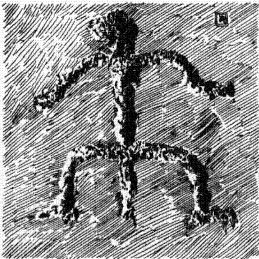
or ideas, nor any pictorial representation of facts. Theirs were entirely oral languages and whatever view we take of it presents the most interesting phenomena connected with the inhabitants of the Pacific."

With the exception of Ellis and Mathison, all the books relating to Hawaii are silent as to the existence of these carvings. No kamaainas, whom I have asked, have been able to give me any legend or tradition concerning their origin.

It has been suggested that these carvings have been made either by school children or by cow boys in their cattle drives, but a careful examination of the carvings and the localities where they are found, makes me believe that this theory is unworthy of consideration. We know that Spaniards visited these islands previous to their discovery by Captain Cook, but if these carvings were made by them, why were not letters and words carved? At least why did not the cross appear? If



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these carvings were made by the Japanese or people of Asiatic origin, why do we not find Asiatic characters, and why are the drawings so rude? If the Hawaiians made these figures and were familiar with them, is it not reasonable to ask why the Hawaiian tapa decorations do not show their influence? The North American Indians, who were familiar with picture

writing, were influenced by their art to decorate their tents with pictures. As far as we know, the Hawaiians were not familiar, as Ellis says, with the use of signs or markings to transmit or record ideas. The books on Hawaii and native tradition are all perfect blanks on the subject of these carvings. All the carvings are found within easy reach of landing beaches, where the population formerly existed, whether transient or otherwise. There is a marked similarity between all of the carvings, although differences do exist. These differences I believe to be due, in the first place, to the hardness or softness of the rock in which they are cut, and in the second place, to the freedom with which the carver could work, those in the caves being less



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elaborate or carefully done than those in the open. That these carvings are old we can reasonably conclude, both from their present appearance and particularly because of the subsidence of the picture ledge of Keonelo. The implements with which the carvings were made were stone implements, and the method of sharpening, as shown on the boulders at Nanahoa, may indicate that the carvers were not Hawaiians, for the Hawaiians generally sharpened their stone implements on a flat surface, and bevel chisels were not commonly used.

I have completed the circle and returned to the original query: Who made these pictographs? This question I do not pretend to answer.

RETROSPECT FOR 1903.

IN reviewing the events of 1903, one is impressed with the lethargic condition that has prevailed in all lines of business throughout the islands during the year, notwithstanding the receipt from the Federal Government of \$1,000,000 toward the payment of Fire Claim awards, and the marketing of the largest sugar crop in the history of these islands. This stagnation has been caused partly by the continued low prices that have prevailed for our main products, sugar and coffee, but largely the result of our unsettled political conditions that have "dragged their weary length along."

This last Legislature, like the one before it, took the full limit of a regular and extra session at an extravagant expenditure of \$84,000 for their services. A number of desirable bills were enacted (thanks to a hard working minority), and several Acts and resolutions passed and attempted which were quite otherwise. As before, the veto power saved us somewhat, but not the wasted time over questionable schemes and efforts to arrogate to themselves executive powers. As an aftermath for some of their doings certain members and officers of the lower house are on the inquisitorial rack before the federal grand jury.

The lessons of the last two Legislatures leave little doubt of the hope and aim of certain native members, home rulers in spirit if not in name, by their race prejudice utterances. Being intoxicated with their vote power for the time being they show little disposition to take wise counsel. This is more especially noticeable in those who have the foreigner to thank for the prominence they enjoy.

COUNTY GOVERNMENT.

An Act which took much time of the regular session of the Legislature was the County bill, which divides up the islands of the Territory into five counties, viz:—Oahu, Maui, Hawaii divided into East and West, and Kauai and Niihau. The Act is to come into effect January 4th, 1904, and the first election for officials thereunder, for the first year, took place November 3rd last. On this island of Oahu, the Republican ticket carried save three. Kauai did even better. Maui went Home Rule entirely, East Hawaii went Home Rule except three, while West Hawaii gives a little better Republican majority.

Thus has the community been kept in political tension the whole year. And after all the hue and cry for county government it is now an uncertainty. One portion of the Act has been declared unconstitutional by the Supreme Court, and it is probable that other tests of its validity may follow.

OFFICIAL CHANGES.

The official changes of the year are of grave import, some of them the force of circumstances unforeseen, yet acted on with expedition from the nature of the case which meets with much approval.

By the resignation of H. E. Cooper as Secretary of the Territory toward the close of 1902, the President appointed Geo. R. Carter, Esq., to the office; and in February Lorrin Andrews, Esq. succeeded E. P. Dole as Attorney General. Recently, through the death of Judge M. M. Estee of the U. S. District Court, Governor Dole was appointed to the position, to immediately enter upon its duties, and Secretary Carter was commissioned Governor in his stead. This has brought changes in turn, the several heads of departments save the Treasurer, tendering their resignations. Governor Carter's inaugural took place November 23rd in the legislative hall in the executive building. In due course the following appointments were announced, viz:

C. S. Holloway, Superintendent of Public Works, vice H. E. Cooper, resigned.

Lorrin Andrews, Attorney General, recommissioned.

A. T. Atkinson, Superintendent of Public Instruction, recommissioned.

J. H. Fisher, Auditor, recommissioned.

J. W. Pratt, Commissioner of Public Lands, vice E. S. Boyd, resigned.

Dr. C. B. Cooper, President of the Board of Health, recommissioned.

W. E. Wall, Surveyor, recommissioned.

And at this writing A. L. C. Atkinson, Esq., is named for Secretary of the Territory.

LAND REGISTRATION ACT.

Among the Acts of the Legislature of 1903 was one "to provide for registering and confirming titles to land," whereby the principles of the Torrens system of Australia is, with some minor changes, made applicable to Hawaii.

The Act establishes a Court of Land Registration to date from July 1, 1903, to hold its sittings in Honolulu, but may adjourn to such other places as public convenience may require. The judge of said court is appointed by the Governor, who in turn appoints a registrar who shall be clerk of the court. A surveyor, and one or more examiners is provided for, appointed by the judge, while the registrar, with approval of the court appoints his assistants.

So far as the application of the law is concerned it is entirely optional as to individuals, but is compulsory with all local corporations having to do with real estate organizing after the Act goes into effect, or foreign corporations of like character entering the field.

Thus, after twelve years following the first suggestion* to the law makers of the country, to examine into the advisability of adopting the Torrens system of land transfers, it comes into existence. The lines of official enquiry then suggested were carried out in the appointment of a legislative commission in 1895, comprising Hons. H. E. Cooper and A. G. M. Robertson and F. W. Makinney, Esq., who reported favorably thereon but desired

* See Report of Minister of Interior to Legislature of 1890.

further time and a small appropriation for a more exhaustive enquiry and report on the subject. The Legislature, however, did nothing in the matter, so it fell through, till, taken up by the Research Club, it was recommended for passage in the Governor's message and pushed to adoption as above stated.

PUBLIC IMPROVEMENTS.

Mention was made early in the year of the completion of the government road around the island of Hawaii, a work that had long been in progress and much desired for the promotion of travel and interchange of commodities between the various districts of the island, and essential also to the extension of home-stead settlements in certain sections.

Street widening improvements in this city and in Hilo have progressed as rapidly as appropriations therefor have been available. The Waikiki and Waialae roads are being vastly improved by the widening and straightening work that has been carried out. The stone and concrete bridge of upper Nuuanu Avenue is completed and the thoroughfare made much wider at this point than before.

Wharfage facilities during the year has claimed attention. The Bishop Estate wharves are finished and the new wharf along River street, parallel to the Hackfeld wharf, for the use of the Inter-Island S. N. Co. is just completed. The old Oceanic wharf has been entirely removed and a new one constructed in its place, with new shed, asphaltum roadways, etc.

For the possibilities of future wharf extension and harbor enlargement a plan is mooted for the excavation of slips into the Esplanade as far as Allen street, a scheme that would be both slow and expensive if adopted.

The completion of work on the deepening of Pearl Harbor bar paves the way for the early prosecution of dry dock construction and other important work in connection with the contemplated establishment of the United States naval station at that point.

Under this head it is in keeping to note the alterations in progress at the terminal station of the Oahu Railroad in the change of the main building, erection of track sheds, with concrete roadways and other improvements for convenience of public traffic.

REAL ESTATE AND BUILDING.

The real estate market has been void of any degree of activity during the year, most parcels changing hands being suburban lots at moderate figures and on easy terms. In spite of effort to maintain values the sluggish nature of business throughout the islands has effected real estate, as is shown in the forced sales that have taken place from time to time, being at much sacrifice from former figures. This has been notably the case in important foreclosures.

Few business parcels have been offered during the period under review, the principal ones being the Lewis property, corner of King and Bethel streets, by commissioners' sale, to effect partition among the heirs, to McCandless Bros.; and the Herbert residence property on Alakea street to L. B. Kerr & Co., whereon has just been completed the most spacious two-story brick store in the city, at a cost of some \$27,000.

On Queen street the Jas. Robinson estate has erected a fine two-story brick store to replace the coral structure destroyed by fire at the opening of the year. The new building is of substantial design, with an attractive front of pressed brick and terra cotta ornamentations, and fine large windows.

The Alexander Young building, in course of construction at last writing, reached completion during early summer, the hotel opening to the public with a pleasant reception July 31st. Most of the stores on the main floor and many of the offices on the second floor found ready tenants. The Kapiolani building was also finished early in the year.

The Odd Fellows' building torn down to permit the widening of Fort street, is being replaced by a fine four-story brick structure to cost \$70,000. The building will rise 76 feet from the sidewalk. Its first floor will have three stores and an entry hall for elevator and stairway; the second and third stories will be fitted for lodge uses, and the fourth, with roof garden attraction, is designed for social purposes, containing hall, club-room, promenade lanai, kitchen and serving room. The building will be well lighted and ventilated, the handsome facade of classic lines and ornamentation of various shades of pressed brick and terra cotta front finish com-

bining to a pleasing effect. J. Ouderkirk is the contractor for its erection, and O. G. Traphagen its architect. The corner-stone laying ceremonies took place Sunday, October 25th, 1903, the building to be completed in February, 1904.

A neat two-story cement-faced brick store, termed The Portland, is just finished at the corner of Hotel and Union streets, which fills out the jog of the Oregon block at that point.

A new two-story brick block is in course of construction on the east side of Nuuanu street, mauka of the Perry block, taking the place of the old McLean store and several above it. It will be divided into six stores.

RAPID TRANSIT EXTENSION.

During the year the lines of the Rapid Transit Company have been extended to facilitate travel and bring a new suburban section of the city within their system. The extension to Kapiolani Park, mentioned as in progress in last issue, had early completion. Since then regular service is maintained on Alakea, Emma and Punch-bowl streets as far as the Pauoa stream, also a regular line traverses the city front and Fort street.

October 11th witnessed the opening of the extension of the road from the base ball tract out the Waiialae road to Kaimuki, bringing this eastern suburb into its circuit on a half hour service.

By its absorption of the Hawaiian Tramways Co., the Rapid Transit line have already occupied the business portion of Fort street and up Nuuanu to School street at this writing, planning to continue on as far up as the Mausoleum, then to the occupancy of Beretania street, when the tramcars will be a thing of the past.

BANNER SUGAR CROP.

This past year has been the banner year for the season's sugar crop of the islands, as to tonnage product; the total amount for the season being 437,991 tons, divided among the several islands as follows:—Hawaii 170,665, Oahu 121,066, Maui 84,776 and Kauai 61,484 tons.

WATER DEVELOPMENT.

The development of water supply for cane irrigation and other purposes claims the attention of planters, naturally, and engineering skill of high order has been engaged for some time past on this important work on several of our prominent plantations.

Early this year there was completed Mr. M. M. O'Shaughnasy's work in the construction of a new ditch for the Makaweli plantation, Kauai, 13 miles long, to lead the water out of the Olokele valley at an elevation of 1000 feet. This ditch has a capacity of 75,000,000 gallons per 24 hours, and there is a minimum flow in the stream of 40,000,000 in the dry season. Its cost is given at \$320,000.

The Pioneer plantation at Lahaina has developed a daily supply of 8,000,000 gallons of water from mountain tunnels this past year; built a number of reservoirs, and is now constructing a ditch from Honokohau of 20,000,000 gallons daily capacity.

Another ditch is being constructed to augment the water supply from the Koolau district, Maui, of 80,000,000 gallons daily capacity, for the Hawaiian Commercial, Haiku and Paia plantations.

On this island of Oahu work has been commenced on the big Wahiawa dam, which is to form the largest reservoir in the islands, to store and supply water to the extensive cane fields of the Waialua Agricultural Co.

PEARL HARBOR.

August 3rd, 1903, dates the completion of the deepening of Pearl Harbor bar and return of the dredgers to Honolulu. This important and difficult piece of engineering work of the United States Government preparatory to the establishment of the naval station long contemplated, has been carried through successfully, though not without misfortune to its first contractors and mishaps to their successors in the undertaking, as mentioned in our last issue. The channel has been dredged to a depth of thirty feet at low tide with a width of 200 feet for a distance of about 2,000 feet, and it has taken since April 1st, 1902, in its prosecution, the

sub-contractors finishing one month ahead of their extended time. Soundings were made from time to time during the progress of the work to test for changing conditions, but no evidence was found of any caving in of the sides or filling of the channel. Mr. Lawrence Thompson was the government engineer in charge of the work for the department at San Francisco, which has jurisdiction of the same.

It is an interesting coincident that the laying of the Pacific Cable and the opening of Pearl Harbor, two events of vast importance to Hawaii, should be completed practically together.

VOLCANIC ACTIVITIES.

Kilauea's revived activity after several years of rest, presented in our last issue, did not long maintain the energy displayed at the close of the year. Following that exhibition of Pele's vitality came a gradual waning of her fiery power, then a sudden extinguishment for a time again of all activity. During the early part of this year spells of activity reappeared, at intervals, and, as if to emphasize her erratic character, a new eruption of Halemaumau is reported at this writing, having occurred November 25th.

The eruption of Mauna Loa's summit crater the early part of October, given elsewhere somewhat in detail, is now reported to show increasing activity, with an outbreak also at Pohaku-hanalei, a small crater on the Kona side of the mountain.

RECORD TRIPS.

Among the record trips of the year it is quite a coincident that the time of passage between San Francisco and this port has been lowered for both steam and sail, the *S. S. Korea*, in January, making the trip in 4 days, 22 hours and 15 minutes, beating the best prior record, her own, of a few months before, by 8 hours and 35 minutes.

The record trip by sail between the two ports was made in May last by the bark *Annie Johnson* in 8 days, 16 hours, thus beating by an hour and a half the remarkable passage which has stood so long to the credit of the clipper ship *Fair Wind* in 1861.

The record trip from San Francisco to Auckland was made this past summer by the S. S. Ventura in 15 days, 4 hours 39 minutes, actual steaming time.

In April, the ship Falls of Clyde made a fine run of 11 days to San Francisco from Hilo, and the four masted ship Fort George about the same time made the trip from Kahului to that port in 12 days.

MARINE CASUALTIES.

Am. ship Florence Spicer, coal laden for this port, sailed from Tacoma, December 1st, 1902, during heavy weather, and has not since been heard from. With her officers she had a crew of about fifteen men.

Jan. 7th, 1903.—Stmr. Waialele was towed from Kilauea, Kauai, by the Ke Au Hou, having broken her shaft in the sleeve as she was entering that port.

Jan. 29th.—Schr. Ada went ashore at Kahana, Oahu, during a spell of boisterous weather, but was subsequently rescued and brought to port.

Am. ship Paramita, Backus, with a cargo of coal from Newcastle for San Francisco, arrived at this port Feb. 21st, 1903, in a badly battered condition, having met the severe hurricane, Jan. 9th, which devastated the Paumotu group, lasting several days. Its severity on the 11th carried away sails and spars, doing much other damage and causing the ship to leak freely, so that when the storm abated and the wreckage was cleared away it was deemed advisable to bear away for this port for repairs.

July 20th.—Brit. steamship Clavering, from the Orient, en route for Mexico, ran on the reef east of the channel during the night, but was got off with the aid of tugs the following day, after several hours' effort, apparently without injury, but on reaching San Francisco the cost of repairs was estimated at \$15,000.

Bark Mauna Ala, Smith, of this port, went ashore July 27th, at Topolobampo, coast of Mexico, and sank in the quicksands, her cargo of lumber floating ashore.

Am. ship Marion Chilcott arrived here Sept. 24th from San

Francisco, with oil cargo, having experienced very heavy weather shortly after leaving port, during which three men were lost overboard and the captain, mate and two seamen were injured. Several sails were also carried away, boats smashed and other damage done.

Am. schr. Otilie Fjord grounded on the channel reef, Oct. 7th, on making port, but was got off on a rising tide the following day by aid of the tug, with rudder somewhat damaged and false keel ground off its entire length.

Fr. bark Conetable de Richmond, Rault, master, from Hongkong for Taetal, South America, ran ashore on French Frigate shoals, Oct. 10th, and had to be abandoned, the officers and crew dividing into three boats, under charge, respectively, of the captain, chief officer, and boatswain, and headed for these islands. The captain's boat reached Niihau on the 18th, and her crew was conveyed to Waimea, thence to this port by the Mikahala.

The Lehua and other steamers were sent out by the acting French consul in search of the missing boats, but they failed to fall in with them. The second boat landed at Kailua, Hawaii, on the 22nd, ten days out, and the crew was brought here by the Iwalani, while the third boat's crew also reached Niihau after much hardship, through stress of weather and condition of the boat, on the 24th, fourteen days out, and was brought hither by the Mikahala. The steamer Kauai made a trip to the scene of the disaster and found the ship capsized and almost entirely submerged save a portion of the bow.

Schr. Julia E. Whalen, with supplies from this port for the Midway Island cable station, went ashore there Oct. 22nd, in attempting to make the anchorage before daylight. Heavy weather setting in she soon became a total wreck, without opportunity of saving any portion of her cargo.

FIRE RECORD.

The fires of 1902 were shown in last Annual to have been unusually severe, yet two others must be added, since. On Dec. 25th the stock and building of the Honolulu Paper

and Supply Co., on King street, at foot of Smith, was badly damaged by fire; and the old two-story building on King, near Fort, was entirely destroyed. These fires were followed shortly afterward by one in Azuki's Japanese store, on Hotel street, doing partial damage.

Toward midnight of Jan. 3rd, 1903, fire broke out in Kerr & Co.'s store in the coral building of the Robinson estate, Queen street. The fire had such headway when discovered that it was some hours before the department got it under control, by which time Morgan's Auction Room, adjoining, shared in the damage to the amount of \$2,000. Kerr & Co.'s stock was reported to be valued at \$135,000, on which there was insurance of \$95,000. The building was so badly damaged that it was immediately torn down.

On 23rd of same month a fine dwelling near the Mormon church, on Punchbowl road, was entirely destroyed by a midnight fire, and an adjoining house materially damaged.

March 11th a morning fire occurred in the Fort Street House, corner of Vineyard street, destroying the upper story and furniture, and causing loss of nearly all property of the lodgers. There was \$4,500 insurance on the building.

June 18th.—Total destruction by fire of the C. W. Booth residence, with its furnishings, on Pacific Heights. Loss estimated at about \$10,000.

Sept. 22nd.—An early morning incendiary fire broke out in the large wooden block, corner of Hotel and River streets, but by the prompt action of neighbors and the fire department it was fortunately early extinguished.

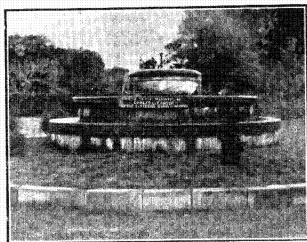
Oct. 2nd.—About 1 a. m. fire broke out in the upper part of the two-story wooden building on the Queen and Richards street corner of the Enterprise Mill property. The department did good work in confining the fire to its place of origin and saving it from spreading to adjoining premises. The corrugated iron building of Catton, Neil & Co., on Queen street, proved a good safeguard, but the exposed buildings, machinery and stock of the Mill Co. narrowly escaped. Fortunately no wind prevailed at the time, so the danger was soon over.

EXODUS OF GILBERTESE.

Practically the whole colony of Gilbert Islanders of Honolulu and Lahaina, some 220 in number, took advantage of the opportunity which presented itself to them to return to their coral island home in October last, by the *S. S. Isleworth*, as that vessel was getting ready for her return to the South Seas.

Notwithstanding the short notice and lack of funds among a majority of these people, through the personal efforts of Rev. H. Bingham, Mr. J. T. Arundel, British Consul W. R. Hoare, C. L. Wight and others, funds were provided and all arrangements were satisfactorily carried through so that they departed, as above stated, October 17th.

IN MEMORIAM.



There has recently been erected on the grounds of Mr. S. M. Damon, at Moanalua, on a commanding terrace just makai of the main government road which runs through the property, the memorial fountain to the memory of Charles L. Carter, who lost his life in de-

fense of the government at the Wilcox revolution of January, 1895.

This fountain was originally planned as a deserving tribute by the Citizens' Guard of Hawaii to the memory of a fellow-member who fell in noble duty, to be erected in some such public place as Union Square. The committee having the matter in hand had difficulty in carrying out the plans proposed, and after much delay in the effort to secure a suitable site, the fountain was purchased by Mr. Damon,

and commemorates his martyred friend at the location stated, and the sum paid therefor to the committee extends the original memorial plan, since it founds a ward at the Leahi Home, at Kaimuki.

DISBARMENT PROCEEDINGS.

A matter of unusual public interest, partly because of its rarity in these islands, was the disbarment proceedings before the Supreme Court in August last affecting four attorneys of this city through alleged questionable transactions growing out of the John K. Sumner case, or cases, of the year, the grounds for charges therefor having been invited by the parties most seriously affected. The trial occupied several days, and upon reaching a decision it resulted in the disbarment of two (one of whom has appealed for a rehearing), the suspension of one for one year, and the dismissal of the charge against the other.

The only other disbarment case of record in these islands, we believe, previous to the one above noted, was in March, 1857, for contempt of court, particulars of which are set forth in Vol. II. of Haw. Reports, pp. 27-34.

INDUSTRIAL SCHOOLS.

The new Industrial School for boys, erected at Waialea, on the line of the Oahu Railroad, situate some eight miles beyond Waialua, was moved into on the 13th of last May by the boys of the Reformatory School, sixty-eight in number, with their principal, T. H. Gibson, and his assistants.

The site selected comprises about 700 acres of land, having a coast line of over a mile, the tract extending back to the mountain ridge. The estate contains fine taro land and a large pond provided with never-failing springs. This situation of the school will enable the department to carry on agriculture, dairy farming, forestry and fishing, besides instruction in mechanics and general school work.

The Reformatory School premises vacated, situate at Kapalama, has been transformed into an Industrial School for girls, where, under correcting restraint, they will be taught sundry

household duties, needle work, etc., as well as the usual school studies. The Department of Instruction has long desired an institution of this character for girls, and the changes as above set forth will doubtless prove beneficial in various ways.

NECROLOGY RECORD.

The dread reaper has again visited this community with unusual severity this past year and removed a number of old residents and prominent personages from our midst—persons of stability, character and worth; men whose influence in political, commercial and professional life left an impress throughout the islands that could not fail to have recognition in larger communities. The following are among the more prominent or well-known names of the departed, including several long identified with the islands who have died abroad: Bishop of Panopolis, Jas. Auld, Albert Kunuiakea, P. Isenberg, in Germany; C. F. Wolfe, J. W. Smith, Kona; A. St. M. Mackintosh, J. B. Atherton, Edward Bailey, in California; Miss S. F. Corney, W. W. Dimond, Dr. G. P. Andrews, S. C. Allen, Mrs. F. H. Hayselden, A. Petrie, W. Dolloway, Kau; Eugene Bal, W. L. Wilcox, Wm. Phillips, D. G. Camarinos, D. T. Bailey, Geo. Ross, Dr. A. M. Atherton, Mrs. E. T. Gulick, Mrs. J. Dudoit, Mrs. Parminter and daughter, T. J. Cummins, Hon. M. M. Estee, Jno. F. Scott, Mrs. H. Bingham, Mrs. G. W. Willfong, in California; W. H. Cornwell, F. J. Hills, G. W. C. Jones and Robt. Wilcox.

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INFORMATION FOR TOURISTS AND OTHERS.

FROM the days of Cook, and Vancouver, Hawaii has claimed the attention of the reading world with intense and growing interest, and in the changes that have taken place in recent years various circumstances have combined to attract this attention more and more. There is a charm about these islands alike in their delightful scenery and climate as in the history of their civilization, educational, political and commercial development, which few other lands possess.

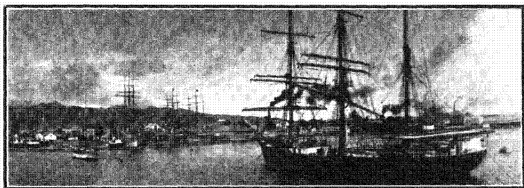
Much of this attraction has been from causes within though much again from outer causes in the world's progress. Commercial activities and rivalry for supremacy in the Pacific was never more alert, nor so wide-spread the plans, in which Hawaii is intimately related as "the cross roads of the Pacific," than they are to-day. The increasing lines of steamships in this ocean already gave a faint intimation, and the completion of the Pacific cable lines—referred to elsewhere—will rapidly emphasize this fact.

Hand in hand with this growth of commerce, Hawaii desires to attract to its shores her share of the tourist travel of the well-to-do class for the enjoyment of her climate and scenery, and the investor for the development of her tropical resources.

The intelligent traveler naturally seeks reliable information of the country he is visiting, or expects to visit, as does the business man the character of his investments.

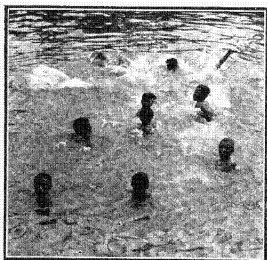
It has been the province of "The Hawaiian Annual," ever since its existence, to present such lines of reliable information as indicated above, for the benefit of foreign inquiry and home reference, and the widening circle of readers; and flattering testimonials received give evidence that the labors in this direction have not been in vain.

The carefully prepared and revised statistical tables cover the fields of government and commercial progress for many years past, while special articles present attractions and existing conditions in Hawaii-nei and indicate also its possibilities.



But while this outlined information has value for many readers, transient visitor and tourist with but a few days—or may be hours only—at their disposal, is desirous of improving the most of his (or her) opportunity to see the attractions of place and people. For such readers the following brief outline is given:

To the incoming visitor, Honolulu, situate on the island of Oahu—and the capital city of the group—presents peculiar attractions, nestled as it is amid evergreen foliage at the foot and in the valleys of a mountain range whose peaks kiss the clouds at a height of 3,000 feet. The grove of coconut trees that fringe the shore along Waikiki give strangers their first tropical impression after rounding Diamond Head—Honolulu's landmark—and the nestling cottages, or more pretentious residences, and commanding hotel that opens up to view while passing down the reef to the entrance of the harbor, presents a picture of restfulness that charms alike all in-comers. First impressions are said to be lasting, and nature has so favored Hawaii that it is a rare occurrence for visitors after a tour of the city, or of the islands, not to express the hope to return for re-enjoyment of place and people.



DIVING FOR COIN.

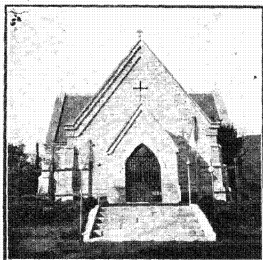
Vessels on entering port find with but rare exceptions, wharfage facilities awaiting them, and as the mail steamers warp in to the dock, numerous native boys swim about anxious to display their skill in diving for nickels, or other small coin, that may be thrown into the water. The scramble of from six to twenty divers after a single coin affords rare sport to strangers.

Upon landing, courteous hack drivers are at hand or within easy reach by telephone, to convey passengers to hotels or

private residences, or for a drive about the city and suburbs. The charge for such service is regulated by law.

If one's time is limited to the brief stay of a through steamer in port, the first important point of interest to visit is the Pali, at the head of Nuuanu valley, distant six miles from the Honolulu Post Office, well

macadamized the whole way. The road leads through the earlier residence portion of the city, affording a view of spacious and well kept grounds to the majority of homes, indicative of the comfort and taste of our residents, passing points of historic interest, then on past stretches of wilder country, flanked on either side by moss and fern-banked mountain slopes, till all of a sudden the gap is reached and the scenic view of the precipices of Koolau, with its rolling table land some twelve hundred feet beneath, and the blue Pacific Ocean in the distance, presents a scene of entrancing beauty. The Pali is made historically famous as the place over which the forces of Kamehameha the First drove his enemies in the final battle in the conquest of this island in 1795.



ROYAL MAUSOLEUM.

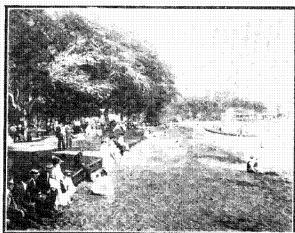
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Next in scenic interest would be a trip to Tantalus, a mountain peak some 2,000 feet high, overlooking not only Honolulu, but the stretch of country ranging from Koko Head to Barber's Point. A good winding carriage road traverses the entire distance and passes through shady forest glades and wild shrubbery into a balmy atmosphere that is attracting public attention more and more as an unsurpassed location for summer cottages.

Another pleasant drive to a commanding point is around Punchbowl, an extinct volcano some 500 feet high, just back of the city, or a trip by the electric cars up Pacific Heights

slope, between Nuuanu and Pauoa valleys, to the proposed hotel site at an elevation of about 800 feet. From these advantageous positions many delightful views are obtained. Honolulu, hidden for the most part amid luxuriant foliage, gives from these points the impression of one large park on the borders of the sea.

While the attractiveness of a drive to Waikiki and Kapiolani Park is admitted by visitors to afford rare enjoyment, the ideal is reached by a sojourn among its seductive groves,

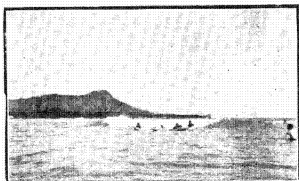


WAIKIKI BEACH SCENE.

where the sound of the restless surf, dashing on the guarding reef, or wavelets rippling on its sandy shore, sings a sweet lullaby. The pleasure of ocean bathing here is in a temperature that, like its skies, its seas, and atmosphere, is surpassed by no other spot in all the wide world. Poets

have sung the praises of Waikiki; writers have vied with each other in describing its charms, and artists have sought inspiration to depict on canvas glimpses of its beauty.

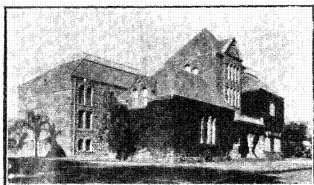
Several Waikiki hostels have been erected to meet the increasing demand for public accommodation at the beach of Waikiki, and affords patrons an excellent vantage ground from which to witness the rare sport of surf-riding.



SURF RIDING.

To the north of Honolulu are situated the Kamehameha

schools, for boys and for girls, established for Hawaiians by



BISHOP MUSEUM.

will of the late Mrs. Bernice Pauahi Bishop. The Museum, established by Hon. Chas. R. Bishop in connection therewith, is an exceptionally fine institution, noted for a completeness in Polynesian antiqui-

ties second to none other in all the world. Certain days of each week are set apart for the free admission of all visitors. At present this is Fridays and Saturdays, from 10 a. m. to 4 p. m., and on days of arrival of through steamers. These institutions are reached by the King street Rapid Transit electric cars, which pass the grounds.

Trains of the Oahu Railway and Land Company leave the station at Lele, King street, thrice daily for Pearl Harbor, Ewa Plantation and way stations. Two trains continue on to the Waianae Plantation, distant thirty-three miles, and from thence around the northern point of the island to Waialua, where the fine hotel, Haleiwa, has been erected with special view to the comfort and attraction of visitors. Trains at this point continue on to Kahuku, the terminus of the line. Visitors taking a railway trip have an opportunity of viewing the magnificent Pearl Harbor, also of witnessing the interesting features, en route, in the cultivation of rice, sugar cane and sisal. At few other points throughout the islands, can these industries be seen so advantageously working, as it were, side by side. Ewa Plantation, and the recently established Oahu Plantation, on land adjacent, as also the Waialua Agricultural Co. will afford tourists an insight into the most modern methods of cane culture and sugar manufacture by three of the principal concerns of the kind on the island.

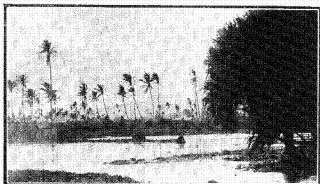
If time is too limited to permit any of the above mentioned trips, an observation tour of the city would be in order, and an interesting time spent in visiting the different public buildings and

grounds, hotels, places of business, the attractive residence portions of the city or its suburbs, and the notable horticultural garden of Mr. S. M. Damon, at Moanalua, generously thrown open to the public on Saturday afternoons.

The attractions of the other islands are not to be ignored, each presenting interesting features of individuality as to scenery, places of historic interest, or established industries. Naturally the volcano of Kilauea, on Hawaii, is the main object of interest

to all tourists and is well worth a visit even in its periods of inactivity. The scenic attractions of the windward coast of Hawaii, which visitors pass on the trip to Hilo, is varied and delightful, while of Hilo itself an eminent visitor wrote—"See Naples, and then die! said somebody. 'See Hilo and live forever! say I.'" Her strong natural at-

tractions and business outlook, through the sugar and coffee industry in its neighborhood, is bringing in an enterprising population that is rapidly extending the limits of the town. Old streets are being widened and new ones are being laid out to meet the public demand of improvement.



COCONUT TREE SCENE.



COAST SCENE.



HILO VIEW.

Comfortable steamers offer frequent facilities to reach all principal points between the islands, two or more weekly for windward ports of Hawaii and one or more for its leeward coast ports, nearly all of which take in Maui en route. Among the strong attractions of the island of Maui, additional to its extensive sugar plantation, is the picturesque valley of Iao—rivaling the Yosemite,—celebrated as the scene of one of the fiercest battles in Hawaiian history, when bodies of the slain dammed the Wailuku and its stream ran blood. The crater at Haleakala, the largest extinct volcano in the world, also on this island, well repays all visitors.

The “garden island” of Kauai in turn presents unrivaled scenic attractions in its picturesque valleys, several of which are enriched by noted waterfalls and a couple of placid rivers, the Hanalei and Waimea. The “barking sands” of Mana, the cliffs of Napali, as also the “spouting horn” of Koloa, are among her natural attractions. Facilities to visit Kauai occur three or more times a week by regular and convenient steamers.



KAUAI VALLEY SCENE.

TAXES.

The annual taxes of the country consist of: Poll, \$1.00; school, \$2.00, and road, \$2.00. Owners of carriages pay \$5.00 each. The dog tax is \$1.00. Real and personal property pays a tax of 1 per cent. upon its cash value as of January 1st of each year, and a tax of 2 per cent. is levied on all incomes and profits of business exceeding \$1,800 per annum.

HOTEL RATES.

Hotel rates for room and board range from \$3.00 to \$5.00 per day. Private accommodations, in various parts of the city, are obtained at prices ranging from \$10.00 per week up.

THE EPISCOPAL CHURCH IN HAWAII.

Written for the Annual by Canon Mackintosh.

THE change which took place a year ago in the Anglican Church in Hawaii was certainly unique in history. There is, we believe, no parallel instance of the daughter church taking upon herself the charge of supporting the mother church. In April, 1902, the Church in America adopted the Church in Hawaii and incorporated it in its entirety, the then Bishop only excepted into its own polity. It seemed good to almost every one that the new regime should have for its chief officer a Bishop from the mainland of the United States of America. So Bishop Restarick, who had done twenty years' good work in California, the nearest State, succeeded Bishop Willis, who had occupied the see for thirty years.

The differences in the form of worship between the Church of England and that in America are so slight that, as the Bishop of California prophesied, in a year they have been forgotten. The services of public worship are now as they were at the commencement of the mission. The Hawaiians have all the offices of the Church in their native tongue, though there are very few

nowadays who do not know the English language better than their own. When the Cathedral is completed, it is to be hoped that all the services will be held in English, and all the Church members able and willing to unite in public worship and in all good works for Christ and His Church.

The transition was made without the least friction. Those who naturally regretted the necessity for the change held their peace, and there was a great influx of members, both old and new, who rejoiced at the change. Proper documents to satisfy the legality of things were drawn up and read at a special service. The English Bishop gave place to the American, The clergy of the whole diocese were admitted in form into the Church in America. The Bishop of California with great diplomatic ability conducted the affairs of the diocese until the arrival of the Right Rev. Henry Bond Restarick, the new Bishop. The status of the Church in the Hawaiian Territory in the Church in America is that of a missionary jurisdiction, and it will remain so until the Church ceases to draw upon the missionary treasury for its support.

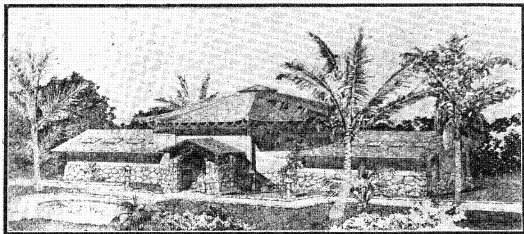
We have no hesitation in saying that had this transition taken place ten years ago, the Church would have assumed all the rights and privileges of a fully constituted diocese, for then were the days of plenty, and coffers were full. But the state of affairs under less flourishing circumstances is a good augury for the near future.

KAPIOLANI PARK AQUARIUM.

Revised from the Account given in the P. C. Advertiser, July 14th, 1903.

Honolulu's long promised and frequently discussed aquarium will soon be a reality.

Through the munificence of several public spirited parties, notably Mrs. S. N. Castle in behalf of the Castle Estate contributing the site, and Mr. and Mrs. Chas. M. Cooke erecting and outfitting the building, this latest attraction is now nearing completion on the beach at Waikiki, abreast of the first station of the Rapid Tran-



sit line within Kapiolani Park, and will form an important link in the general scheme for beautifying and adding future pleasure and recreation.

As a place of instruction the aquarium will be of much interest to the student, the resident, and the visitor at "the cross roads" as well, who, at no other place in Pacific waters may behold the same beautiful varieties of rainbow hued specimens of the finny tribe.

A large aquarium involves constant care and anxiety; the fish must be fed so that they may enjoy good health, and to insure this they must live under conditions as near as possible the same as they have been accustomed to in the water from which they have been taken.

Aeration is accomplished by carrying a main pipe over the entire length of building, from which under pressure, a small stream of water pours from a tap into each tank, breaking the surface of the water, and carrying to the bottom of the tanks, and distributing over the bodies of their contents, myriads of minute bubbles of air.

The vegetation which forms a beautiful and interesting feature of the aquaria, serves a double purpose, as such growths serve to purify the water.

Sea weeds, however, do not bear transplanting, but sea water is so impregnated with the seeds or germs of vegetable life, that

when a few stones or fragments of rocks are taken from the ocean, marine vegetation speedily commences and proceeds.

Following is a brief description of the aquarium under construction at Waikiki:

In style or character the general exterior of the building has a touch of Oriental, in a simple treatment which is well adapted to harmonize with conditions of environment.

The grounds will be laid out in an attractive manner, affording park facilities, sea vistas and access to the beach.

The principal materials used in construction are old lichen-covered field stones for the sub-base, a buttressed stone entrance, with cut voussoir arch stones, and frame for the balance of the structure, with an open timber construction for the roof of pavilion.

In plan the building is cruciform, the total length of cross-arms being 83 ft. 10 in., and total length on main axis, from entrance to future extensions or additions.

At the intersection of arms is formed an octagonal pavilion 40 ft. wide, in which may be arranged plaster casts of rare specimens of the deep. In the center of pavilion is a basin or tank 12 ft. in diameter.

In each arm is arranged the aquaria on either side of corridors leading from the pavilion, consisting of a series of compartments, or tanks, numbering thirty-six, for the different varieties of fish.

The tanks are constructed of concrete and metal lath 3 ft. 6 in. wide, 3 ft. 6 in. high and 5 ft. long; on the corridor side, separating the visitor from the finny tribe, will be half an inch thick polished plate glass. The tanks are lighted from skylight formed in roof above; the light penetrating through the water will show off the beautiful tints and variegated colors of the fish in their element.

Back of the row of tanks is a passage, affording working space and concealing from view the attendants, at their duties caring for the fish, regulating supply of air or water, or rearranging new exhibits.

Salt water will be pumped from a well excavated in the coral

near the beach, into a 4,000 gallon distributing tank, elevated sixteen feet.

The water thus obtained will be subjected to a filtering process, deleterious matter being separated by the passage of water through sand and coral.

From the distributing tank, water will be conducted through one and a half inch bored redwood pipe, with brass cock outlets for the supply of each of the aquaria, into which will run constantly a half inch jet of water delivered at the surface, through a nozzle or reducer which admits air being sucked in and forced into the water of the tank, in minute globules.

There is also a separate piping system through which an auxiliary pump will force air into the various tanks, thus insuring water being perfectly aerated.

ON November 24th, 1903, there was opened to the public, with an appropriate and instructive address by Prof. W. T. Brigham, Director, the new addition to the Bernice Pauahi Bishop Museum, termed Hawaiian Hall, erected expressly for the concentration and proper exhibition therein of material of local origin, which had largely outgrown its first quarters. The richness of the collection is materially enhanced by the beautiful interior finish of the structure in polished koa throughout, with metal grillwork and ornate bronze columns. Of intense interest to students of Hawaiian life are the realistic life-size casts by Allen Hutchinson, the sculptor, of the poi pounders, tapa beaters, and the kahuna at his *pule anaana* (praying to death). A model grass hut, showing mode of construction; models of the volcano Kilauea and an ancient heiau, etc., are among the prominent object lessons of this splendidly equipped institution that must be gratifying alike to its founder, Chas. Reed Bishop, its Board of Trustees, and their indefatigable Director and his staff of assistants.

POSTAL SERVICE, TERRITORY OF HAWAII.

Corrected to December 1, 1903.

Lorin H. Bricket, Inspector in Charge.
 Geo. W. Carr, Asst. Sup't. Railway Mail Service.
 Jos. M. Oat, Postmaster.
 Louis T. Kenake, Cashier and Asst. Postmaster; Jno. T. Stayton, Asst. Cashier; Geo. L. Desha, Sr., Chief Registry Clerk; F. E. Colby, Chief Money Order Clerk; W. C. Kenake, Chief Mailing Clerk; E. M. Brown, Chief Distributor.

POSTMASTERS ON HAWAII.

Hilo.... Wm. I. Madeira
 Pepeekeo.... E. N. Deyo
 Honomu.... Wm. Hay
 Kawaihae.... C. B. Wells
 Mahukona.... E. A. Frazer
 Kukuiahae.... W. Horner
 Kamuela.... Miss E. W. Lyons
 Kohala.... Miss M. R. Woods
 Paauilo.... Anthony Lidgate
 Laupahoehoe.... E. W. Barnard
 Ookala.... W. G. Walker
 Honokaa.... A. B. Lindsay
 Kapoho.... W. H. C. Campbell
 Mountain View.... E. L. Rackliff
 Kalapana.... S. H. Haaheo
 Volcano House.. St. Clair Bidgood

Keauhou.... H. L. Kawewehi
 Holualoa.... M. F. Scott
 Kailua.... John P. Curt's
 Kealakeakua.. Miss M. Wassman
 Napoopoo.... R. Wassman
 Hoopuloa.... D. L. Keliikuli
 Hookena.... Jos. Keawe
 Pahala.... T. C. Wills
 Hilea.... Jno. C. Searle
 Honuapo.... Geo. Dawson
 Waiohinu.... Anna H. McCarthy
 Naalehu.... G. C. Hewitt
 Hakalau.... D. McKenzie
 Olaa.... F. B. McStocker
 Papaaloa.... Alfred C. Palfrey
 Lalamilo.... W. Vredenberg

POSTMASTERS ON MAUI.

Lahaina.... Arthur Waal
 Wailuku.... L. M. Vetleson
 Makawao.... A. F. Tavares
 Hana.... N. Omsted
 Huelo.... F. E. Chamberlain
 Puunene.... H. P. Baldwin
 Kaupo.... J. S. Garnett
 Makena.... J. M. Napoula
 Kihei.... Jas. Scott
 Honokohau.... R. C. Searle

Kipahulu.... A. Gross
 Kahului.... R. W. Filler
 Paia.... D. C. Lindsay
 Hamakuapoko.. W. F. Mossman
 Haiku.... Jas. Lindsay
 Peahi.... T. K. Pa
 Waihee.... E. K. Kapu
 Nahiku.... N. E. Lemmon
 Keanae.... D. P. Kapewa
 Waiakoa.... Chas. E. Copeland

POSTMASTERS ON OAHU.

Aiea.... James A. Low
 Pearl City.... J. P. Keppler
 Ewa.... Geo. F. Renton
 Waipahu.... H. D. Johnson
 Waianae.... F. Meyer
 Waialua.... W. W. Goodale
 Laie.... Josiah Keaulana

Hauula.... Moses Aalona
 Waimanalo.... A. Irvine
 Kahuku.... H. K. Oana
 Heeia.... Frank Pahia
 Wahiawa.... L. G. Kellogg
 Haleiwa....
 Waikane.... Sam'l. Kaiwi

POSTAL SERVICE—*Continued.*

POSTMASTERS ON KAUAI.

Lihue.. . . .	Frank Crawford	Kealia.. . . .	Jno. W. Neal
Koloa.. . . .	M. A. Rego	Kilauea.. . . .	I. M. Cox
Hanapepe.. . . .	H. H. Brodie	Kekaha.. . . .	O. Omsted
Makaweli.. . . .	W. A. Baldwin	Waimea.. . . .	C. B. Hofgaard
Eleele.. . . .	J. I. Silva	Hanalei.. . . .	C. H. Willis
Kapaa.. . . .	Levi P. Kauhoe		

POSTMASTERS OF MOLOKAI AND LANAI.

Kamalo.. . . .	D. McCorrison	Keomoku.. . . .	Chas. Gay
Pukoo.. . . .	A. T. Bannister	Kalawao.. . . .	Wm. Clark
Kalae.. . . .	Ellen Sobey	Kalaupapa.. . . .	J. S. Wilmington
Pelekunu.. . . .	Levi Mahiai	Kaunakakai.. . . .	Alonzo J. Wilson
Halawa.. . . .	Miss Emma Kane		

POST OFFICE INFORMATION.

Office hours of the General Delivery are from 6 a. m. to 12 o'clock midnight. On legal holidays the time is from 8 a. m. to 9 a. m. On Sundays, from 10 to 11 a. m.

Hours of the Stamp and Registry Departments are from 8 a. m. to 6 p. m., and of the Money Order Department from 9 a. m. to 5 p. m.

The General Delivery is open (except Sundays and holidays) from 6 a. m. till midnight, for the delivery of mail, registering of letters and issuance of Money Orders.

Inter-Island mails close forty-five minutes before the sailing of steamers. For foreign ports the ordinary mail closes one hour prior to steamer's departure.

RATES OF POSTAGE, DOMESTIC.

First class matter (letters, etc.).....	2 cents per oz. or fraction
Second class (newspapers and periodicals).....	1 cent per oz. or fraction
Third class (books, circulars).....	1 cent per 2 oz. or fraction
Fourth class (merchandise—limit of weight 4 lbs.)	1 cent per oz. or frac.
Registration Fee (additional postage).....	8 cents
Immediate Delivery Stamp (additional to postage).....	10 cents
Postal Cards.. . . .	1 cent each

FOREIGN POSTAGE.

The rates to all foreign countries except Canada and Mexico are: Letters—per half ounce or fractional part, 5 cents; second and third class matter, 1 cent for each 2 ounces or part. Postal Cards, 2 cents each.

Parcels of Merchandise, 12 cents per pound. Limit of weight, 11 pounds.

COURT CALENDAR.

The several terms of Circuit Court are held chronologically throughout the year as follows:

First Mondays in January, April and September, in the city of Honolulu, Island of Oahu; second Wednesdays in March, June and October, in Wailuku, Island of Maui; fourth Wednesdays in April and December, in the town of Kailua, N. Kona, and fourth Wednesdays in July and November, in Kohala, Island of Hawaii; third Wednesdays in February, May and November, in the town of Hilo, Island of Hawaii.

By Circuits the several terms are held as follows:

First Circuit—Island of Oahu.

On the first Mondays of January, April and September.

Second Circuit—Island of Maui.

On the second Wednesdays of March, June and October, in Wailuku.

Third Circuit—Island of Hawaii.

(Hawaii is divided into two Circuits.)

On the fourth Wednesdays of April and December, in Kailua, N. Kona, and on the fourth Wednesday of July, in North Kohala.

Fourth Circuit—Island of Hawaii.

On the third Wednesdays of February, May and November, in Hilo, and on the third Wednesday of August, in Honokaa.

Fifth Circuit—Island of Kauai.

On the fourth Wednesdays of March, July and December, in Lihue.

The terms of the Second, Third and Fifth Circuit Courts may be continued and held from the opening thereof, respectively, until and including the twenty-fourth day thereafter, excepting Sundays and legal holidays. Provided, however, that any such term may be extended by the presiding judge for not more than twelve days thereafter.

Terms in First and Fourth Circuits may extend until the commencement of succeeding ones, but the April term of the First Circuit must not go beyond the last Saturday in June.

SUPREME COURT.

The Supreme Court, by Act 22, Laws of 1901, opens its only term throughout the year on the first Monday of October, and thereafter continues to hold sessions.

REFERENCE LIST OF PRINCIPAL ARTICLES.

That have appeared in the Hawaiian Annuals, 1875-1903.

(In consequence of the frequent inquiry for various articles that have appeared in the Annuals; their time of issue, etc., with the request that an index thereof be compiled for handy reference, we have classified the principal articles published therein under their respective subjects, and trust the list will prove helpful to many.—Editor.)

AGRICULTURAL.

- History of Sugar Industry of Hawaiian Islands, by T. G. T., 1875, p. 34.
History of Coffee Culture in Hawaiian Islands, by T. G. T., 1876, p. 46; 1895, p. 63.
History of Rice Culture in Hawaiian Islands, by T. G. T., 1877, p. 45.
The Hawaiian Islands as a Sugar Producing Country, by T. G. T., 1879, p. 27.
Varieties of Sweet Potato, by T. G. T., 1879, p. 30.
Varieties of Taro, by T. G. T., 1880, p. 28; Taro, by T. G. T., 1887, p. 63.
Cultivated Sugar Canes of the Hawaiian Islands, by A. C. Smith, 1882, p. 61.
Something About Bananas, by Walter Hill, 1883, p. 62.
Fruits and Their Seasons in the Hawaiian Islands, List of, by T. G. T., 1886, n. 49.
Introduction of Queensland Canes, by C. N. Spencer, 1889, p. 91.
Hawaiian Varieties of Bananas, by T. G. T., 1890, p. 79.
Lapsed and Possible Industries in Hawaii-nei, by T. G. T., 1893, p. 105.
Bureau of Agriculture and Forestry, by T. G. T., 1894, p. 92.
Diversified Industries, by Jos. Marsden, 1894, p. 94.
Coffee Outlook in Hawaii, by T. G. T., 1895, p. 65; in Hamakua, 1899, p. 131.
Cotton, a Possible Hawaiian Industry, by L. D. Timmons, 1898, p. 57.
Sugar as an Industry for the Hawaiian Islands, by J. B. Atherton, 1898, p. 106.
Coffee the Coming Industry, by L. D. Timmons, 1898, p. 109.
Agricultural Possibilities, by W. N. Armstrong, 1898, p. 114.
Kona, Hawaii—Its Possibilities, by T. G. T., 1899, p. 127.
The Hawaiian Islands, an Official Report of U. S. Department of Agriculture, by Dr. W. Maxwell, 1900, p. 61.
Farming in Hawaii, by W. B. Thomas, 1901, p. 124.
Organizations for the Promotion of Agriculture in the Hawaiian Islands, by T. F. Sedgwick, 1902, p. 133.
The Hawaii Experiment Station, by Jared G. Smith, 1902, p. 136.
The Agricultural Development of Hawaii, from Census Report, 1903, p. 45.
Ancient Hawaiian Farming, by Rev. W. D. Westervelt, 1903, p. 62.

COMMERCIAL.

- Honolulu Packet Lines with New and Old World, by T. G. T., 1886, p. 45.
Private Signals Honolulu's Commercial Marine, by T. G. T., 1891, p. 98.

- Fifty Years of Hawaiian Commercial Development, by T. G. T., 1894, p. 58.
 Hawaiian Commercial Development, by T. G. T., 1896, p. 87.
 Hawaii's Eastern Sugar Fleet, by T. G. T., 1897, p. 84.
 California's Participation in the Commercial Development of Hawaii, by T. G. T., 1898, p. 51.
 Hawaii's Commercial Relations, by J. I. Stacker, 1898, p. 128.
 The Financial Outlook, by A. T. Atkinson, 1898, p. 149.
 Hawaii's Early Divergent Trade, by T. G. T., 1899, p. 146.

EDUCATIONAL.

- The Transit of Venus of 1874, by C. J. Lyons, 1875, p. 27.
 Board of Education—Its Duties, etc., by T. G. T., 1878, p. 38.
 Longitude of Honolulu, by C. J. Lyons, 1879, p. 64.
 Hawaiian Ideas of Astronomy, from Dibble's History, 1882, p. 49.
 Some Hawaiian Proverbs, by H. L. Sheldon, with notes by Rev. C. M. Hyde, 1883, p. 52.
 Helps to the Study of Hawaiian Botany, by Rev. C. M. Hyde, 1886, p. 39.
 The Hawaiian Islands, a Geographical Sketch, by T. G. T., 1889, p. 49.
 The Kamehameha Schools, by Rev. C. M. Hyde, 1890, p. 62.
 Instructions in Ancient Hawaiian Astronomy, by Prof. Alexander, 1891, p. 142.
 Educational Work of American Mission for the Hawaiian People, by Rev. C. M. Hyde, 1892, p. 117.
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 Education in Hawaii, by Prof. Alexander, 1898, p. 76.
 Notes on the Census of 1896, by A. T. Atkinson, 1898, p. 81.
 Physical Characteristics, by F. S. Dodge, 1898, p. 100.
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 Evolution of Land Titles in Hawaii, by P. H. Weaver, 1899, p. 139.
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 A Suggestive Criticism on Hawaiian Translation, by E. C. Bond, 1900, p. 148.
 An Island Art Center—Oahu College, by Ed Towse, 1900, p. 123.
 Outline of the Coming Census, by A. T. Atkinson, 1900, p. 150.
 Geology of Oahu, by Rev. S. E. Bishop, 1901, p. 59.
 The Meaning of Some Place Names, by C. J. Lyons, 1901, p. 181.

HISTORICAL.

- History of Hawaiian Post Office, by Em. Fenard, 1876, p. 29.
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 Commemorative Monument to Kamehameha I, by T. G. T., 1880, p. 60.
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 Constitution of Hawaiian Kingdom (of July, 1887). 1888, p. 33.
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 Some Noted Battles of Hawaiian History, by T. G. T., 1889, p. 55.
 Hawaiian Postal Savings Bank, by H. F. Poor, 1889, p. 67.
 Brief History of the Steam Coasting Service of Hawaiian Islands, by T. G. T., 1889, p. 70.
 Early Visitors to the Hawaiian Islands, by Prof. Alexander, 1890, p. 37.

- Brief History of Land Titles in Hawaiian Kingdom, by Prof. Alexander, 1891, p. 195.
- History of Provisional Cession of the Hawaiian Islands and Their Restoration, by T. G. T., 1893, p. 45.
- Constitutional History of the Hawaiian Kingdom, by Prof. Alexander, 1894, p. 46.
- The Present Hawaiian Situation, by T. G. T., 1894, p. 143.
- Hawaii, a Republic, by T. G. T., 1895, p. 43.
- The New Hawaiian Constitution, by Dr. Albert Shaw, from "Review of Reviews," 1895, p. 48.
- The Hawaiian Flag Unchanged, by T. G. T., 1895, p. 55.
- Brief Record of the Rebellion, by T. G. T., 1896, p. 56.
- Early History of the House of C. Brewer & Co., by Jas. F. Hunnewell, 1896, p. 68.
- Hawaii's New Seal and Coat-of-Arms, by T. G. T., 1897, p. 86.
- An Historic Residence (the Cooke Homestead), by T. G. T., 1897, p. 112.
- Brief History of Differences Between Hawaii and Japan, by S. E. Bishop, 1898 p. 70.
- The Constitution, by S. B. Dole, 1898, p. 91.
- The Pictured Ledge of Kauai, by J. K. Farley, 1898, p. 119.
- Annexation of Hawaii to the United States, by T. G. T., 1889, p. 72.
- The Passing of Hawaii's Aliis, by T. G. T., 1900, p. 86.
- Yachting in Hawaiian Waters, by T. G. T., 1900, p. 109.
- Interesting Hawaiian Discovery; Ancient Idol Unearthed, by T. G. T., 1900, p. 126.
- Admission Day of Hawaii, by T. G. T., 1901, p. 51.
- Honolulu's Battle with Bubonic Plague, by T. G. T., 1901, p. 97.
- History of the House of H. Hackfeld & Co., by T. G. T., 1902, p. 43.
- Bureau of Conveyances, by T. G. T., 1903, p. 123.

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- History and Description of Hawaiian Postage Stamps, by T. G. T., 1878, p. 41.
- The Hawaiian Flag, by T. G. T., 1880, p. 24.
- Marine Casualties for the Hawaiian Islands, by T. G. T., 1882, p. 31; 1883, p. 40; 1884, p. 34.
- Hawaiian Names of Relationship, by Rev. C. M. Hyde, 1884, p. 42; and reply by Abr. Fornander, 1885, p. 46.
- The Hawaiian Flag and Coat-of-Arms, by T. G. T., p. 37.
- Some Hawaiian Conundrums by Rev. C. M. Hyde, 1886, p. 68.
- Hawaiian Poetical Names for Places, by Rev. C. M. Hyde, 1887, p. 79.
- Hawaiian Words for Sounds, by Rev. C. M. Hyde, 1888, p. 55.
- Early Constitution of Hawaiian Islands, by A. F. Judd, 1889, p. 63.
- Idolatrous Customs and Kapu's of the Hawaiian People, from address of John Ii, 1890, p. 59.
- Taxation in Hawaii, by W. R. Castle, 1892, p. 63.
- Ancient Hawaiian Water Rights, by Mrs. E. M. Nakuina, 1894, p. 79.
- Curiosities of the Registry Office, by T. G. T., 1895, p. 56.
- Bird Hunters of Ancient Hawaii, by Dr. N. B. Emerson, 1895, p. 101.
- Hawaiian Kapa Making, by Prof. W. T. Brigham, 1896, p. 83.
- Hawaiian Surf Riding, by T. G. T., 1896, p. 106.
- Obsolete Street Names, by T. G. T., 1897, p. 88.
- Hawaiian Epidemics, by T. G. T., 1897, p. 95.
- The Battle of Nuuanu, by T. G. T., 1899, p. 107.
- Hawaiian Personal Names, by T. G. T., 1899, p. 113.

- Fornander's Account of Hawaiian Legends Resembling Old Testament History, by Rev. C. M. Hyde, 1900, p. 138.
Kahoolawe an Early Place of Banishment, by T. G. T., p. 117.

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Reminiscences of the Press, by Jno. F. Thrum, 1877, p. 24.
Anecdote of Kamehameha I., by J. I. Dowsett, 1879, p. 29.
Reminiscences of Theatricals in Honolulu, by H. L. Sheldon, 1881, p. 34.
Hawaiian Maritime History, by T. G. T., 1890, p. 66; 1891, p. 125.
Restoration Day, a Recollection, by G. D. Gilman, 1893, p. 70.
Eminent Hawaiian Women Who were Early Converts, by M. A. Chamberlain, 1893, p. 81.
Old-Time Coasting Service, by G. D. Gilman, 1894, p. 85.
Kaluahinenui's Heroic Deed, by T. G. T., 1895, p. 60.
Genesis and Evolution of Honolulu's Dailies, by T. G. T., 1897, p. 108.
Honolulu in 1853, by W. Goodale, with supplement by T. G. T., 1899, p. 80.
Honolulu in Primitive Days; Selections from an Old Journal, 1901, p. 74.
Nuanu Pali in Olden Time, by Prof. Alexander, 1901, p. 87.
Club Life in Honolulu, by Hon. A. S. Cleghorn, 1902, p. 128.
More Landmarks Removed, by T. G. T., 1902, p. 143.

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- Decadence of Hawaiian Forests, by F. L. Clark, 1875, p. 19.
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Algae of the Hawaiian Islands, by J. E. Chamberlain, 1881, p. 32.
Indigenous Ornamental plants, by J. M. Lydgate, 1882, p. 25.
Hawaiian Entomology, by Rev. T. Blackburn, 1882, p. 58.
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Key of Genera and Species of Hawaiian Ferns, by Dr. A. B. Lyons, 1891, p. 76.
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Introduction of Foreign Birds Into Hawaiian Islands, by Prof. H. W. Henshaw, 1901, p. 132.
Complete List of Birds of the Hawaiian Possessions, with Notes on Their Habits, by Prof. H. W. Henshaw, 1902, p. 54; 1903, p. 73.
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FOLK LORE.

- Hawaiian Tradition of the Origin of Fire, by Rev. A. O. Forbes, 1879, p. 59.
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(Corrected to December 5, 1903.)

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Lorrin Andrews.....Attorney-General
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C. S. Holloway.....Supt. Public Works
A. T. Atkinson.....Supt. Public Instruction
J. H. Fisher.....Auditor
F. D. Creedon..Private Secy. to Governor

Jonah K. Kalaniana'ole.....
.....Delegate to Congress

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Kalua.
Oahu—Cecil Brown, C. L. Crabbe, W. C.
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Kauai—S. W. Wilcox, L. Nakapaahu.

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ner, F. Maurice McMahon.

NOTE—Through important changes in the Register of Territorial Officials contemplated by the County Act, to take effect Jan. 4, 1904, several omissions occur.
Other curtailment has been necessary through the failure of interested parties to report their corrections.

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W. S. Ellis.....Bailiff 2nd Judge
C. K. Quinn.....Bailiff 3rd Judge

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L. B. Nainoa.....Koolauloa
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G. K. Kunukau.....Honuaula
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Organized March 18, 1901.

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McInerny, J. G. Rothwell, H. F.
Wichman, and J. F. Hamburg, with
the officers, form the Directors.

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CHANGE.

Organized April 25, 1902.

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1st Vice-President.....J. H. Craig
2nd Vice-President.....W. W. Hall
Secretary J. D. Avery
Treasurer Robt. Catton
Directors—J. F. Bowler, W. E. Rowell,
Jas. Nott, Jr., A. F. Clark, J. Emme-
luth, term expires 1905, and W. W.
Harris, L. E. Pinkham, G. F. Bush,
S. Stephenson, and A. Harrison, term
expires 1904.

HONOLULU STOCK AND BOND EX-
CHANGE.

Organized Aug. 8, 1898.

President J. F. Morgan
Vice-President H. Armitage
Secretary W. A. Love
Treasurer C. Spreckels & Co.

HAWAIIAN SUGAR PLANTERS' AS-
SOCIATION.

Reorganized Nov., 1885.

President E. D. Tenney
Vice-President F. M. Swanzy
Secretary and Treasurer.....W. O. Smith
Auditor G. H. Robertson

LIVE STOCK BREEDERS' ASSOCIA-
TION.

Organized March 17, 1902.

President D. P. R. Isenberg
Vice-President Eben P. Low

Secretary A. F. Judd
Treasurer A. B. Wood
Ex. Com.: L. L. McCandless, A. W. Car-
ter, E. A. Knudsen, J. Monsarrat.

THE FARMERS' INSTITUTE.

Organized Jan. 25, 1902.

President Jared G. Smith
Vice-President
Secretary and Treasurer..D. L. VanDine

HOOULU LAHUI SOCIETY.

Organized, 1878.

President D. Kawanakoa
Vice-President
Secretary Mrs. Manuel Reis
Treasurer Mrs. Pierre Jones

PORTUGUESE CHARITABLE SO-
CIETY.

Organized Sept 1, 1902.

President J. D. Marques
Vice-President J. Abreu
Secretary C. Faria
Treasurer J. A. R. Viera

JAPANESE BENEVOLENT SOCIETY.

President Dr. Iga Mori
Vice-President S. Okabe
Secretary T. Ishikawa
Treasurer S. Ozaki

CATHOLIC LADIES' AID SOCIETY.

President Mrs. A. E. Murphy
Vice-President Mrs. M. Cowes
Secretary Miss Alice Doherty
Treasurer Mrs. C. du Roi

LIBRARY AND READING ROOM AS-
SOCIATION.

Organized March, Incorporated June 24,
1879.

President C. R. Bishop
Vice-President M. M. Scott
Secretary H. A. Parmelee
Treasurer Miss H. Hillebrand

HAWAIIAN HISTORICAL SOCIETY.

Organized Jan. 11, 1892. Annual Meeting
November.

President Dr. N. B. Emerson
Vice-Presidents..S. B. Dole, W. F. Allen,
J. S. Emerson.

Recording Secretary W. F. Frear
Cor. Secretary Prof. W. D. Alexander
Treasurer and Librarian
..... Miss H. Hillebrand

KILOHANA ART LEAGUE.

Organized May 5, 1894.

President C. W. Dickey
Vice-President A. R. Gurrey, Jr.
Secretary and Treasurer
..... Mrs. L. G. Marshall
Auditor P. H. Dodge
Directors: W. E. Pinkham, Miss Tabor.

HAWAIIAN MEDICAL ASSOCIATION.

Organized May 24, 1895. Annual Meeting
in May.

President Dr. W. L. Moore
Vice-President Dr. F. R. Day
Secretary and Treasurer
..... Dr. J. T. McDonald
Drs. W. E. Taylor and C. B. Cooper,
with the above officers, constitute the
Executive Committee.

HAWAIIAN SOCIETY SONS OF THE
AMERICAN REVOLUTION.

Organized June 17, 1895.

President F. J. Lowrey
Vice-President
Secretary S. M. Ballou
Registrar W. D. Alexander
Treasurer W. J. Forbes

BAR ASSOCIATION OF HAWAII.

Organized June 28, 1899.

President W. O. Smith
Vice-President J. L. Kaulukou
Secretary J. A. Matthewman
Treasurer C. R. Hemenway
Auditor F. M. Brooks

QUEEN'S HOSPITAL.

Erected in 1860.

President.....The Governor
Vice-President.....F. A. Schaefer
Secretary.....Geo. W. Smith
Treasurer.....H. Waterhouse
Auditor.....M. P. Robinson
Physicians—Drs. C. B. Wood, C. B. Coop-
er, W. H. Mays, E. C. Waterhouse.
Resident Physician.....Dr. F. E. Sawyer
Executive Committee—A. S. Cleghorn,
H. Waterhouse, F. A. Schaefer, F. J.
Lowrey, E. F. Bishop, G. W. Smith.

LEAHI HOME.

Organized April 4, 1900.

President.....Alex. Young
Vice-Presidents—W. O. Smith, C. H.
Atherton.
Secretary.....T. Clive Davies
Treasurer.....S. E. Damon
Auditor.....J. P. Cooke
Medical Supt..A. N. Sinclair, M. B. C.M.
Asst. Supt.....H. Taylor
Matron.....Mrs. H. Taylor
Directors: S. B. Dole, Alex. Young, A.
L. C. Atkinson, W. O. Smith, S. E.
Damon, Geo. Smithies, Albert Judd.

SAILORS' HOME SOCIETY.

Organized 1853. Meets annually in
December.

President.....W. F. Allen
Vice-President.....E. D. Tenney
Secretary.....F. A. Schaefer
Treasurer.....E. F. Bishop
Executive Committee—W. W. Hall, C. L.
Wight, H. Waterhouse.

BOARD OF HAWAIIAN EVANGELI-
CAL ASSOCIATION.

Originally Organized 1823.

Constitution revised 1863. Annual meet-
ing June.

President....P. C. Jones
Vice-President.....W. W. Hall
Corresponding Secretary.....
Recording Secretary..Rev. J. Leadingham
Treasurer.....Theo. Richards
Auditor.....F. J. Lowrey

WOMAN'S BOARD OF MISSIONS.

Organized 1871.

President.....Mrs. G. P. Andrews
Recording Secretary..Miss M. L. Sheeley
Home Cor. Secretary.....
.....Mrs. C. H. Dickey
Treasurer....Mrs. B. F. Dillingham
Auditor.....W. W. Hall

MISSION CHILDREN'S SOCIETY.

Organized 1851. Annual Meeting in June.
President.....Dr. A. B. Clark
Vice-President.....Mrs. E. A. Weaver
Secretary.....Mrs. R. W. Andrews
Elective Members—Rev. W. D. Wester-
velt and Dr. W. D. Alexander.
Treasurer.....L. A. Dickey

YOUNG MEN'S CHRISTIAN ASSOCIATION.

Organized 1869. Annual Meeting in April.

President (Acting).....C. J. Day
 Vice-President.....
 Rec. Secretary.....R. S. Corson
 Treasurer.....C. H. Atherton
 General Secretary.....H. C. Brown
 Assistant Secretary.....Fred Young

YOUNG WOMAN'S CHRISTIAN ASSOCIATION.

Organized 1900.

President.....Mrs. E. W. Jordan
 Vice-President.....Mrs. B. F. Dillingham
 Secretary.....C. B. Dyke
 Treasurer.....Mrs. B. L. Marx
 General Secretary.....Mrs. H. C. Brown
 Physical Directress...Miss Lillian Bacon
 Auditor.....Miss M. S. Guild

WOMAN'S CHRISTIAN TEMPERANCE UNION OF HAWAII.

Organized December, 1884.

President.....Mrs. J. M. Whitney
 Vice-Presidents—Mrs. G. L. Pearson,
 Mrs. W. M. Kincaid, Mrs. E. S. Muck-
 ley.
 Recording Secretary....Mrs. C. H. Austin
 Cor. Secretary.....Mrs. E. W. Jordan
 Treasurer.....Mrs. L. B. Coan
 Auditor....W. A. Bowen

FREE KINDERGARTEN AND CHILDREN'S AID ASSOCIATION.

Organized 1895.

President.....Mrs. A. B. Wood
 Vice-Presidents—Mrs. W. F. Allen, Mrs.
 S. B. Dole and Mrs. Jno. Usborne.
 Recording Secretary.....
Miss Elsie Waterhouse
 Treasurer.....Mrs. F. M. Swanzy
 Financial Secretary..Mrs. H. E. Coleman
 Auditor.....W. L. Howard

ASSOCIATED CHARITIES.

Organized June 7, 1899.

President.....S. B. Dole
 1st Vice-President...Rev. A. Mackintosh
 2nd Vice-President...Mrs. Jno. Usborne
 Secretary.....Mrs. J. M. Whitney
 Treasurer.....C. H. Cooke
 Manager.....Mrs. E. F. Berger

AMERICAN RELIEF FUND.

Organized 1864. Meets annually Feb. 22.

President.....W. F. Allen
 Vice-President.....R. Lewers
 Secretary and Treasurer..W. O. Atwater
 Committee—W. F. Allen, R. Lewers, J.
 Emmeluth.

STRANGERS' FRIEND SOCIETY.

Organized 1852. Annual Meeting in June.

President.....Mrs. A. Mackintosh
 Vice-Presidents—Mrs. T. H. Hobron, Mrs.
 A. Fuller.
 Secretary.....Mrs. S. M. Damon
 Treasurer.....Mrs. E. W. Jordan
 Auditor.....E. W. Jordan

BRITISH BENEVOLENT SOCIETY.

Organized 1860. Meets annually.

President (ex-officio).....W. R. Hoare
 Vice-President.....Rev. A. Mackintosh
 Secretary.....R. Catton
 Treasurer.....Geo. F. Davies
 Relief Committee—G. R. Ewart, J. C.
 Cook, W. H. Baird, F. Harrison, Jno.
 Lucas, W. H. Pain, with the above
 officers, comprise the committee.

GERMAN BENEVOLENT SOCIETY.

Organized August 22, 1856.

President.....F. A. Schaefer
 Vice-President.....H. A. Isenberg
 Secretary.....John F. Eckart
 Treasurer.....B. von Damm
 Auditor.....H. J. Nolte

HAWAIIAN RELIEF SOCIETY.

Organized 1895.

President.....Mrs. S. C. Allen
 1st Vice-President...Mrs. Saml. Parker
 2nd Vice-President...Miss L. Peabody
 Secretary.....Mrs. E. S. Cunha
 Treasurer.....Mrs. J. F. Bowler

HOSPITAL FLOWER MISSION.

President....Mrs. E. W. Jordan
 Vice-President...Mrs. A. F. Judd
 Secretary.....Mrs. G. F. Davies
 Treasurer.....Miss von Holt
 Auditor.....E. W. Jordan

OAHU CEMETERY ASSOCIATION.

President.....A. S. Cleghorn
Vice-President.....J. H. Soper
Secretary.....D. Dayton
Treasurer.....G. R. Carter

ANTI-SALOON LEAGUE OF HONOLU-
LU, T. H.

Organized March 4, 1901.

President.....Rev. W. D. Westervelt
1st Vice-President....Rev. G. L. Pearson
2nd Vice-President....Mrs. J. M. Whitney
Secretary.....Rev. E. S. Muckley
Treasurer.....W. A. Bowen

PACIFIC (FORMERLY BRITISH) CLUB

Organized 1852. Premises on Alakea
Street, two doors below Beretania.

President A. S. Cleghorn
Vice-President Godfrey Brown
Secretary Jas. G. Spencer
Treasurer J. M. Dowsett
Directors: H. M. Whitney, Jr., F.
Klamp, J. P. Cooke, R. W. Spalding
and D. P. R. Isenberg, with the above
officers, comprise the Board.

SCOTTISH THISTLE CLUB.

Organized April 27, 1891.

Chief R. Anderson
Chieftain Jas. Cumming
Secretary J. F. Fenwick
Treasurer Jno. H. Catton
Master-at-Arms E. G. Munroe
Club Room, Oregon Building, Union
Street, Meeting on Friday, 7:30 p. m.

YOUNG HAWAIIANS' INSTITUTE.

Organized Aug. 10, 1894.

President Geo. H. Huddy
Vice-President C. A. Long
Recording Secretary Chas. Wilcox
Financial Secretary A. St. C. Pifanaia
Treasurer N. Fernandez
Marshal J. A. Aheong
Executive Com.: C. B. Dwight, J. L.
Holt and M. K. Cook.
Meets 1st and 3rd Thursdays each month,
in Kapiolani Building.

OAHU POLO CLUB.

Organized Jan 1, 1901.

President W. F. Dillingham
Vice-President A. F. Judd

Secretary R. W. Shingle
Treasurer G. C. Potter
Captain S. E. Damon
Directors: C. S. Dole and C. W. Dickey.

HAWAII YACHT CLUB.

Organized Oct., 1901.

Commodore C. W. Macfarlane
Vice-Commodore Geo. Crozier
Sec. and Treas P. L. Weaver
Port Captain L. de L. Ward
Measurer J. A. Lyle
Directors: T. W. Hobron, D. Kawanana-
koa, E. A. Mott-Smith, W. F. Dilling-
ham, D. L. Conkling.

MYRTLE BOAT CLUB.

Organized Feb. 5, 1882.

President W. W. Harris
Vice-President Antonio Perry
Secretary J. H. Soper, Jr.
Treasurer Chas. Crane
Captain O. Sorenson
Trustees: W. H. Soper, A. A. Wilder and
W. C. Parke.

HEALANI BOAT CLUB.

Incorporated Dec., 1894.

President C. L. Crabbe
Vice-President A. L. C. Atkinson
Secretary F. H. Armstrong
Treasurer Bert Webster
Captain A. S. Walker
Vice-Captain Fred Damon
Commodore Merle Johnson
Vice-Commodore Harry Murray
Auditor Carl Rhodes

HAWAIIAN ROWING ASSOCIATION.

President A. L. C. Atkinson
Vice-President W. C. Parke
Secretary and Treasurer... A. A. Wilder
Regatta Committee: W. C. Parke, Merle
Johnson.

OAHU COLLEGE.

President—Arthur F. Griffiths, A. B.,
Psychology and Philosophy.
Wilbur J. MacNeil, Chemistry and Nat-
ural Sciences.
W. A. Anderson—Mathematics.
Susan Gardner Clark—Greek and Latin.
Levi Cassius Howland—Commercial De-
partment.

Anna Luise Hasforth—German and French.
 H. W. Forbes—History and Latin.
 Katharine Merrill Graydon, A. B.—Greek and English.
 Lucy M. Adams—English and History.
 Gerard Barton—Director of Music.
 Carolyn Heloise Barton—Instructor in Piano.
 Florence Kelsey French—Asst. Teacher.
 Alice M. Lull—Violin.
 Anna H. Parke—Instructor in Art.
 Mary Charlotte Alexander—Asst. Teacher.
 Mary L. Bettis—Matron.
 Jona. Shaw—Business Manager.
 Claire H. Uecke—Kindergarten Director.
 S. S. Frear and C. V. C. Hall—Assistants.
 Frank Barwick—Supt. of Grounds.

PUNAHOU PREPARATORY.

Principal (acting)—Helen K. Sorenson.
 Emogene Hart—Eighth Grade.
 Helen K. Sorenson—Vice-Principal, Seventh Grade.
 Mary Gray Borden—Sixth Grade.
 Lulu Grau—Fifth Grade.
 E. A. B. Turner—Fourth Grade.
 Ada Ride Whitney—Third Grade.
 Mary Persis Winne—Second Grade.
 —First Grade.

KAWAIAHAO GIRLS' SEMINARY.

Miss Kathryn C. McLeod—Principal.
 Assistants—Misses Colwelle, Edna Skinner, Nellie Waddington, Annie Forbes.
 Mrs. Mary Watson—Matron.

KAMEHAMEHA GIRLS' SCHOOL.

Principal.... Miss Ida M. Pope
 Instructors—Misses F. N. Albright, N. B. Forsythe, S. L. Byington, H. E. McCracken, J. M. Rocheford, M. McPherson, E. Robinson, M. Lawrence, N. Baker.
 Assistants—Misses M. Kinney, H. Keoiki and V. Lima.

KAMEHAMEHA MANUAL SCHOOL.

Principal Charles Bartlett Dyke
 Vice-Principal U. Thompson
 Registrar and Business Agent
 Thos. E. Robinson
 Teachers—F. M. Watson, Ira Eskew, R. C. Ingram, Mr. and Mrs. D. Hill, J. L. Hopwood, F. G. Krauss, Stanley Livingston, C. E. Whitman, N. G. Smith, Miss G. Darling, Miss M. Reed, Miss S. M. Jacobs, and Miss L. A. Tisdale, D. Kanhua, A. Hottendorf.
 Librarian Miss S. M. Jacobus

PREPARATORY DEPARTMENT, KAMEHAMEHA.

Principal (Acting).... Miss Sara A. Smith
 Assistants—Misses M. L. O. Gorton, Maud Post, E. Thomas, Grace A. Fogg, M. K. Cramer, E. Kahanu, and Rosina Shaw.

HONOLULU (STEAM) FIRE DEPARTMENT.

Originally organized 1851, and conducted as volunteers till March 1, 1893, when it was changed to a paid department.
 Fire Commissioners—A. Brown, C. Crozier, Frank Hustace.
 Chief Engineer—Chas. Thurston.
 Asst. Engineer—Augustus Deering.
 Honolulu Engine No. 1—Location, Central Station, cor. Fort and Beretania streets.
 Mechanic Engine No. 2—Location, Central Station, cor. Fort and Beretania streets.
 Chemical Apparatus No. 3—Location, Central Station, cor. Fort and Beretania streets.
 Protection Hook and Ladder Co. No. 1—Location, Central Station, cor. Fort and Beretania streets.
 Engine Co. No. 4—Location, cor. Wilder avenue and Piikoi street.
 Engine Co. No. 5—Location, King street, near Reform School.

FIRE ALARM SIGNALS.

12. Cor. King and Fort.
13. Queen and Fort.
14. Bethel and Merchant.
15. Nuuanu and Queen.
16. Nuuanu and King.
17. Nuuanu and Hotel.
21. Fort and Hotel.
23. Alakea and Hotel.
24. Alakea and Merchant.
25. Punchbowl and King.
26. Punchbowl and Queen.
27. South and Queen.
31. Fort and Allen.
32. Foot of Fort.
34. Foot of Alakea.
35. Alakea-Halekauwila.
36. Richards and Queen.
37. Punchbowl and Allen.
41. Alakea and Beretania.
42. Nuuanu and Beretania.
43. Smith and Pauahi.
45. Beretania and River.
46. Maunakea and King.
47. King and River.
51. Iwilei Road, opp. entrance to Stockade.
52. Iwilei Road, opp. Jail.
53. Beretania and King.
54. Liliha and King.
56. Insane Asylum Road and School St.

- 57 King Street, 200 feet Ewa of Pumping Station.
61. Vineyard and River.
62. Vineyard St. and Nuuanu Ave.
63. Vineyard and Fort.
64. Vineyard and Punchbowl.
65. Beretania and Punchbowl.
67. Alapai and Beretania.
71. Liliha and School.
72. Liliha and Judd.
73. Pauoa and Nuuanu Avenue.
74. Nuuanu and School.
75. Fort and School.
76. Emma and School.
81. Alapai and King.
82. Victoria and King.
83. Kapiolani and Beretania.
84. Kapiolani and Green.
85. Pensacola and Lunalilo.
86. Pensacola and Beretania.
87. Piikoi and King.
91. Thurston Ave. opp. Magazine.
92. Pensacola and Wilder Ave.
93. Lunalilo, opp. Kewalo.
94. Keeaumoku St. and Wilder Ave.
95. Kewalo and Heulu.
96. Makiki and Dominis.
97. College and Dominis.
123. Makiki and Lunalilo.
124. Keeaumoku and Kinau.
125. Keeaumoku and King.
126. Punahou, opp. Bingham.
127. Punahou and King.
128. Sunny South.
132. Waikiki Road and Kalia Road.
134. Kalia Road opp. W. R. Castle Place.
135. Waikiki Road, opp. Moana Hotel.
136. Waikiki Road, opp. Race Track.

PRINCIPAL PUBLICATIONS.

- The Hawaiian Gazette, issued semi-weekly by the Hawaiian Gazette Co., Ltd., on Tuesdays and Fridays. Walter G. Smith, Editor.
- Sunday Advertiser, issued every Sunday morning by the Hawaiian Gazette Co., Ltd. Walter G. Smith, Editor.
- The Daily Pacific Commercial Advertiser, issued by the Hawaiian Gazette Co., every morning (except Sundays). Walter G. Smith, Editor.
- Official and Commercial Record, issued semi-weekly by the Hawaiian Gazette Co., Ltd.
- The Daily Bulletin, issued every evening (except Sundays), by the Bulletin Pub. Co. W. R. Farrington, Editor.
- The Hawaiian Star, issued every evening (except Sundays), by the Hawaiian Star Newspaper Association. Frank L. Hoogs, Manager. Semi-weekly issued on Mondays and Thursdays.
- The Independent, issued daily (except Sundays). F. J. Testa, Proprietor.
- The Guide, issued every Tuesday and Friday mornings by the Guide Pub. Co.

- The Friend, Organ of the Hawaiian Board, issued on the first of each month. Rev. Jno. Leadingham, Editor.
- The Anglican Church Chronicle, issued on the first Saturday of every month. Rev. A. Mackintosh, Editor.
- The Paradise of the Pacific, issued monthly. W. M. Langton, Editor.
- The Planters' Monthly, issued on the 15th of each month. R. D. Mead, Editor.
- Y. M. C. A. Review, issued monthly. H. C. Brown, Editor.
- The Kuokoa (native), weekly, issued every Friday morning by the Hawaiian Gazette Co., Ltd. D. L. A-i, Editor.
- O. Luso (Portuguese), issued weekly on Saturdays. J. S. Romas, Editor.
- As Boas Novas (Portuguese), sectarian monthly. A. O. R. Vieira, Editor.
- A. Libadade, Portuguese weekly, published on Thursdays. Camilo Pereira, Editor.
- The Hawaiian-Chinese News, issued semi-weekly.
- Chinese Chronicle, weekly, issued every Wednesday.
- Sun Ching Bok Wo, semi-weekly, Chinese.
- Aloha Aina (native), issued daily except Sundays. Weekly issued every Saturday. Ed. Like, Editor and Manager.
- Lahui Hawaii (native), issued every Friday. J. Makainai, Editor.
- The Yamato Shimbun, Japanese daily.
- Hawaiian Shinpo, issued daily in Japanese.
- Honolulu News, Japanese daily.
- Hilo Tribune, issued weekly, on Saturdays by the Tribune Pub. Co., Hilo. L. W. Haworth, Editor.
- The Hawaii Herald, issued weekly at Hilo on Thursdays by the Herald Pub. Co. J. T. Stacker, Editor.
- The Maui News, issued weekly at Wailuku, Maui. G. B. Robertson, Editor.
- The HAWAIIAN ANNUAL, issued the latter part of December for the following year. Thos. G. Thrum, Editor and Publisher.

HONOLULU LODGES, ETC.

- Lodge Le Progres de l'Oceanie, No. 124, A. F. & A. M.; meets on the last Monday in each month.
- Hawaiian Lodge, No. 21, F. & A. M.; meets in its hall, Masonic Temple, corner Hotel and Alakea streets, on the first Monday in each month.
- Honolulu Chapter, No. 1, R. A. M.; meets in Masonic Hall on the third Thursday of each month.
- Honolulu Commandery, No. 1, Knights Templar; meets in Masonic Hall on second Thursday of each month.
- Mystic Shrine, Aloha Lodge. No stated time of meeting. Meets at Masonic Hall.

Kamehameha Lodge of Perfection, No. 1, A. & A. S. R.; meets in Masonic Hall on the fourth Thursday of each month.

Nuuanu Chapter of Rose Croix, No. 1, A. & A. S. R.; meets in Masonic Hall on the first Thursday in the month.

Alexander Liholiho Council, No. 1, of Kadosh; meets on the third Monday of alternate months from February.

Pacific Lodge No. 822, A. F. & A. M.; meets at Masonic Hall every second Monday of the month.

Leahi Chapter, No. 2, Order of the Eastern Star; meets on third Monday of each month in Masonic Hall.

Excelsior Lodge, No. 1, I. O. O. F.; meets at the hall in Odd Fellows' Building, on Fort St., every Tuesday evening.

Harmony Lodge, No. 2, I. O. O. F.; meets each Monday evening in Harmony Hall, King street.

Pacific Degree Lodge, No. 1, Daughters of Rebekah; meets at Harmony Hall, King street, second and fourth Thursdays of each month.

Olive Branch Rebekah, No. 2, I. O. O. F.; meets first and third Thursdays each month at Harmony Hall.

Polynesian Encampment, No. 1, I. O. O. F.; meets in Odd Fellows' Building, Fort street, first and third Fridays of each month.

Oahu Lodge, No. 1, K. of P.; meets every Thursday evening at Harmony Hall, on King street.

Mystic Lodge, No. 2, K. of P.; meets every Wednesday evening at Harmony Hall.

Section N. 225—Endowment Rank, K. of P.; meets on the second Saturday of January, July and December in Harmony Hall.

Hawaiian Council, No. 689, American Legion of Honor; meets on second and fourth Friday evenings of each month in Harmony Hall.

Oceanic Council No. 777, American Legion of Honor; meets on the first and third Tuesdays of each month.

Hawaiian Tribe No. 1, Improved Order of Red Men; meets on second and fourth Fridays of each month at San Antonio Hall.

Court Lunalilo, No. 6600, A. O. of Foresters; meets at San Antonio Hall on first and third Fridays of each month.

Court Camoes, No. 8110, A. O. F.; meets second and fourth Tuesday evenings of month in San Antonio Hall.

Geo. W. De Long Post, No. 45, G. A. R.; meets the second Tuesday of each month at San Antonio Hall.

Geo. C. Wiltse Camp, Sons of Veterans; meets on third Tuesday of each month in San Antonio Hall.

Capt. Cook Lodge, No. 353, Order Sons of St. George; meets at San Antonio Hall every Monday evening.

Court Hawaii, No. 3769, I. O. F.; meets first and second Tuesdays of each month at San Antonio Hall.

Damien Council, Young Men's Institute; meets second and fourth Wednesdays of each month at San Antonio Hall.

Honolulu Lodge, B. P. O. Elks, 616; meets every Friday evening in the Elks' Building, corner of Miller and Beretania streets.

Honolulu Aerie, No. 140, Fraternal Order of Eagles; meets first and third Wednesdays each month at San Antonio Hall, Vineyard street, near Emma street.

American Association of Masters and Pilots of Steam Vessels, Honolulu Harbor, No. 54; meets first and third Sundays of each month at 7 p. m. in Harmony Hall.

Marine Engineers' Beneficial Association, 100; meets every Monday night at Elks' Lodge.

PLACES OF WORSHIP.

Central Union Church, Congregational (Independent), corner Beretania and Richards streets; Rev. Wm. M. Kincaid, Pastor. Services every Sunday at 11 a. m. and 7:30 p. m. Sunday-school meets one hour before morning service. Prayer meeting Wednesday evenings at 7:30.

Palama Chapel, Rev. A. C. Logan, Superintendent. Sunday-school at 9:30 a. m. Gospel services at 7:30 p. m.

Methodist Episcopal Church, corner Beretania and Miller streets. Rev. G. L. Pearson, Pastor. Sunday services at 11 a. m. and 7:30 p. m. Sunday-school meets at 10 a. m. Prayer meeting Wednesdays at 7:30 p. m.

The Christian Church, Rev. E. S. Muckley, Pastor. Sunday services at 11 a. m. and 7:30 p. m. at their house of worship, Alakea street, near King. Sunday-school meets at 9:45 a. m.

Salvation Army, services held nightly at hall on King street, near Fort, with Sunday services at the usual hours.

Peniel Mission, Hall corner Hotel and Fort streets. Street and hall meetings every day except Monday. Sunday services at 9 a. m. and 3 and 8 p. m.

Roman Catholic Church, Fort street, near Beretania; Rt. Rev. Libert Boeynaems, Bishop of Zeugma. Services every Sunday at 10 a. m. and 4:30 p. m. Low mass every day at 6 and 7 a. m. High mass Sundays and Saints' days at 10 a. m.

- St. Andrew's Cathedral, Protestant Episcopal; entrance from Emma street, near Beretania. Rt. Rev. Henry Bond Restarick, Bishop of the Missionary District of Honolulu; Rev. Canon Alexander Mackintosh, Rev. Frank Fitz. Holy Communion, 7; Sunday-school, 10; Morning prayer, litany and sermon, 11; Hawaiian service, 3:30; evening prayer and sermon, 7:30.
- German Lutheran Church, Beretania St.; Rev. W. Felmy, Pastor. Services on Sunday at 11 a. m.; Sunday-school at 10 a. m.
- Chinese Congregation, Rev. Kong Yin Tet, Curate. Services on Sunday at 11 a. m. and 7:30 p. m. Evening prayer every Wednesday at 7 p. m.
- St. Clement's Chapel, Punahou. Services on Sundays. Holy Communion, 7 a. m. Morning prayer, 11 a. m.; evening prayer, 7:30 p. m. Rev John Usborne, Rector.
- Christian Chinese Church, Fort street; Rev. E. W. Thwing, acting Pastor. Services every Sunday at 10:30 a. m. and 7:30 p. m. Prayer meeting Wednesdays at 7:30 p. m.
- Portuguese (Protestant) Mission; Rev. A. V. Soares, Pastor. Services every Sabbath at the usual hours. Sunday-school at 3 p. m. Chapel situated corner of Punchbowl and Miller streets.
- Reorganized Church of Jesus Christ, G. J. Waller, Pastor. Services in Mililani Hall. Sunday-school at 10 a. m.; preaching in Hawaiian at 11 a. m.; in English at 7:30 p. m.

- Seventh Day Adventists, Rev. J. H. Behrens, Pastor. Chapel in Printers' Lane. Sabbath-school Saturdays at 10 a. m.; preaching at 11. Wednesday prayer and missionary meeting at 7:30 p. m.
- Japanese Union Church (connected with Hawaiian Board Missions); Rev. S. Okubo, Pastor. Hold services at the Lyceum at 10 a. m. Preaching at 11 a. m. and 7:30 p. m. Sunday services. Prayer and praise meeting Wednesdays at 7 p. m.
- Japanese Church, Rev. G. Motokawa, Pastor. Hold services in hall on Kukui street, near St. Louis College.
- Bishop Memorial Chapel, Kamehameha Schools; Dr. W. B. Ekin, Chaplain. Morning service at 11.

NATIVE CHURCHES.

- Kawaiahao Church (Congregational), corner of King and Punchbowl streets; Rev. H. H. Parker, Pastor. Services in Hawaiian every Sunday at 11 a. m. and 7:30 p. m. Sunday-school at 10 a. m. Prayer meeting Wednesdays at 7:30 p. m. Rev. W. D. Westervelt, in charge of English work among Hawaiians.
- Kaumakapili Chapel (Congregational), King street, near Kaiulani School; Rev. W. N. Lono, Pastor. Services every Sunday at 11 a. m. and 7:30 p. m. Sunday-school at 10 a. m.

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County Officers Elected at the First County Election, Held Nov. 3, 1903.

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Supervisors—Frank R. Harvey, John Lucas, M. P. Robinson, J. A. Gilman, A. Hocking, J. M. Kealoha, S. K. Mahoe.
Clerk and Recorder....Harry E. Murray
Sheriff.....Arthur M. Brown

Auditor.... Isaac H. Sherwood
Treasurer.. S. E. Damon
Assessor.....C. P. Iaukea
Dist. Atty.....Wm. T. Rawlins
Surveyor.....C. J. Willis

COUNTY OF WEST HAWAII.

Supervisors—G. C. Hewitt, Jno. A. Maguire, James F. Woods, Robert Hind, J. W. Kelikoa.
Sheriff.....Geo. P. Kamauoha
Clerk.....S. K. Pua
Assessor.....W. P. McDougall
District Attorney.....Guy F. Maydwell
Treasurer.....John Kaelemakule
Surveyor.....Dan P. Namanu

COUNTY OF EAST HAWAII.

Supervisors—Eugene H. Lyman, T. K. Lalakea, R. H. Makekau, J. Palau, Stephen L. Desha.
Sheriff.....Wm. Manaole Keolanui
Clerk.....Norman K. Lyman
Assessor.....Wm. E. Edmonds
District Attorney.....John U. Smith
Treasurer.....Rufus A. Lyman
Surveyor.....Thomas E. Cook

COUNTY OF KAUAI.

Supervisors—W. H. Rice, G. W. Mahikoa, M. A. Rego, Geo. H. Fairchild, Francis Gay.
Clerk.....Edward Palmer
Sheriff.... J. H. Coney
Auditor.....J. K. Farley
Treasurer.....J. A. Palmer
Assessor.....C. A. Rice
District Attorney.....S. K. Kaeo

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Sheriff.....William White
Clerk.... D. H. Kahaulelio
Auditor.....L. R. Crook
Assessor.... D. K. Kahaulelio
District Attorney.....John Richardson
Treasurer.....Patrick Cockett
Surveyor.....J. K. Kahookele

FEDERAL OFFICIALS.

(Corrected to December 5th, 1903.)

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U. S. DISTRICT COURT.

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R. W. Breckons.....U. S. Attorney
J. J. Dunne.....Asst. U. S. Attorney
E. R. Hendry.....U. S. Marshal
F. L. Winter.....
.....Office Deputy U. S. Marshal
W. B. Maling.....Clerk
Frank L. Hatch, Miss F. M. Handy
.....Deputy Clerks
E. A. Douthitt.....U. S. Commissioner

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Miss F. M. Handy.....Assistant
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Chester L. Doyle....Japanese Interpreter
Dan'l. Kikaha.....Bailiff and Crier
Antone Manuel....Messenger and Janitor

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Jno. B. Dias.....
.....Deputy U. S. Shipping Commis'n'r
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.....Deputy Collector, Mahukona
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R. C. Brown, G. R. Cullen and R. L. Halsey.....Immigrant Inspectors
Tomizo Katsunuma..Japanese Interpreter
Wm. K. Luther, E. P. O. Sullivan, S. Nuuanu and Louis Caesar.....
.....Immigrant Watchmen

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Joshua K. Brown.....
.....Chinese Inspector in Charge
Chung Leong....Chinese Interpreter
H. B. Brown and Thos. Honan.....
.....Chinese Watchmen

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.....Collector Internal Revenue
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W. F. Drake.....Division Deputy
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.....Stamp Deputy and Cashier
Lee Sing.....Messenger

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S. A. Deel, aid in U. S. Coast and Geodetic Survey, in charge of Magnetic Observatory near Sisal Station, Ewa.

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 D. L. VanDine—Expert and Special Agent

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 Geo. W. Carr.....
Asst. Supt. Railway Mail Service
 Jos. M. Oat.....Postmaster
 L. T. Kenake.....
Cashier and Asst. Postmaster
 Jno. T. Stayton.....Asst. Cashier
 Geo. L. Desha.....Chief Registry Clerk
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 Civil Engineer—U. S. G. White, U. S. N.
 Medical Inspector—W. E. Taylor (retired), Surgeon.
 Pay Clerk—F. F. MacWilkie, U. S. N.
 Lieut. Hugh Rodman, U. S. N., Commanding U. S. S. Iroquois.
 Commandant's Clerk—Geo. Meisel.

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Capt. Geo. McK. Williamson, Quartermaster, U. S. A.

Major Wm. B. Davis, Surgeon U. S. A. in charge of Military Hospital, on leave of absence.

1st Lieut. Wm. R. Harrison, 66th Company, Coast Army.

Capt. J. B. Douglas, Art. Corps, Commanding 66th Company, Coast Army.
 1st Lieut. H. W. Newton, Art. Corps, Camp McKinley.

2nd Lieut. F. J. Behr, Art. Adjutant Camp McKinley.

2nd Lieut. J. S. Davis, Art. Quartermaster Camp McKinley.

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Jno. Weddick, Acting Assistant Surgeon U. S. M. H. S., Kahului, Maui.

R. H. Dinegar, Acting Assistant Surgeon U. S. M. H. S., Kihei, Maui.

R. L. Peters, Acting Assistant Surgeon U. S. M. H. S., Lahaina, Maui.

E. S. Goodhue, Acting Assistant Surgeon U. S. M. H. S., Koloa, Kauai.

B. D. Bond, Acting Assistant Surgeon, U. S. M. H. S., Mahukona, Hawaii.

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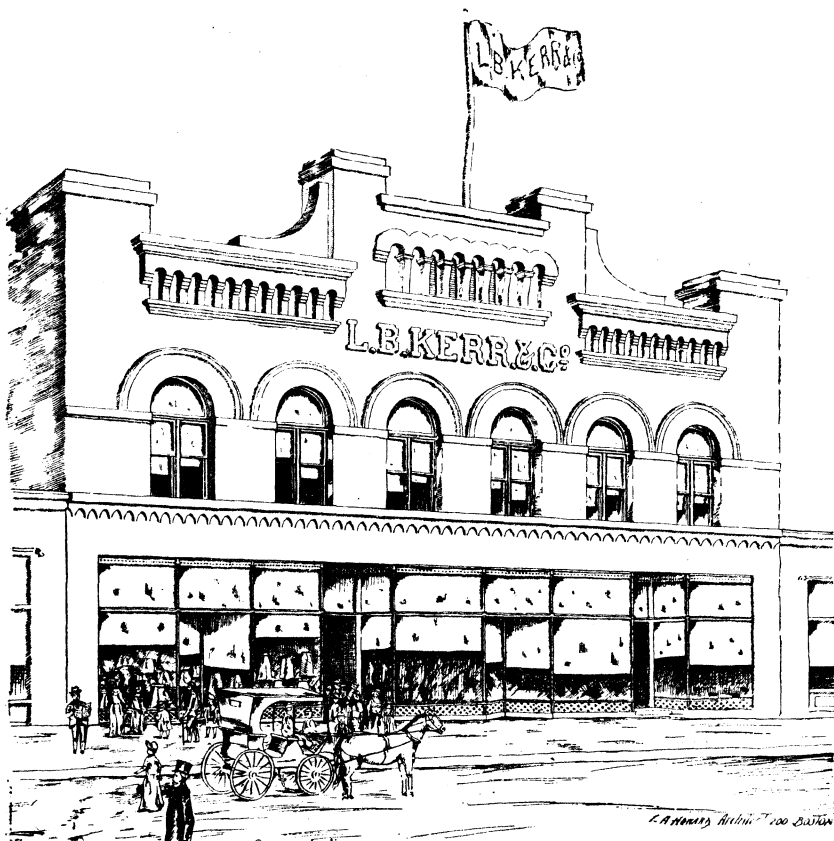
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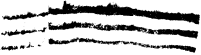
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